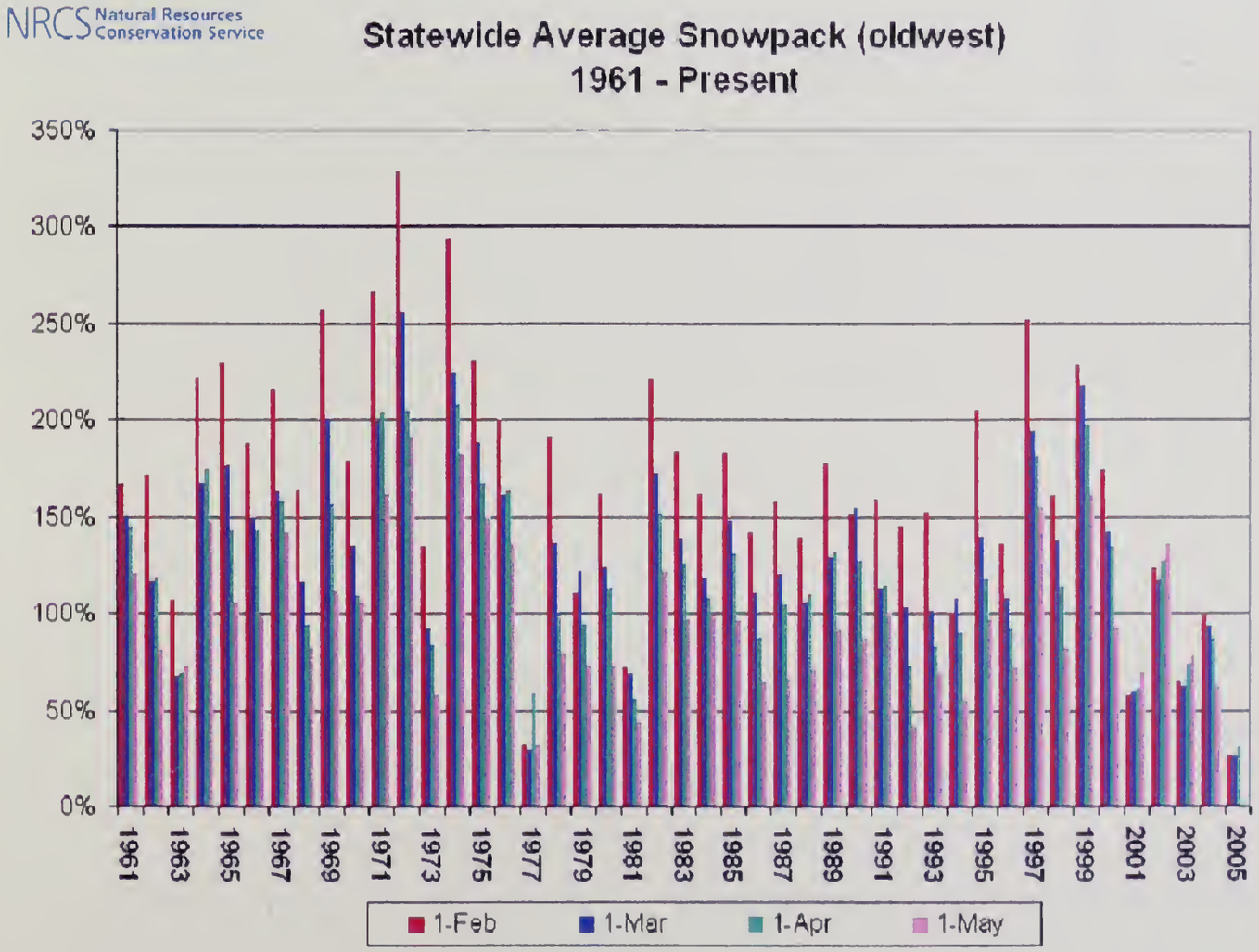
United States Department of Agriculture

Natural Resources Conservation Service

Washington Water Supply Outlook Report April 1, 2005

NRCS Natural Resources Conservation Service



Water Supply Outlook Reports
and
Federal - State – Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

Washington
Water Supply Outlook

April 2005

General Outlook

Snow course and SNOTEL readings collected on April 1, 2005 continue to indicate that many areas in Washington will have severe to critical water shortages. Near to slightly above average precipitation during March helped maintain what precious snowpack we have left. Slight increases in snowpack were seen but on this watermark date, we would have needed 10-20 times more than what we received to bale us out of what is shaping up to be the worst water supply season on record. Currently most reservoirs have near average storage and should be able to adequately meet early season demands; however some early season rationing may be required to provide minimum flows later in the season. Weather forecast agencies are indicating a welcome change in the long lead forecast with a chance of above average precipitation over the next few months. However above average temperatures are forecasted to continue which could expedite melt out of an already paltry snowpack.

Snowpack

The April 1 statewide SNOTEL readings increased from last month to 32% of average. The Newman Lake Basin snow surveys reported the lowest readings at 7% of average. Readings in the Kettle River Basin (including Canadian data) reported the highest at 76% of average. Westside averages from SNOTEL, and April 1 snow surveys, included the North Puget Sound river basins with 36% of average, the Central Puget river basins with 29%, and the Lewis-Cowlitz basins with 26% of average. Snowpack along the east slopes of the Cascade Mountains included the Yakima area with 28% and the Wenatchee area with 36%. Snowpack in the Spokane River Basin was at 40% and the Walla Walla River Basin had 29% of average. Maximum snow cover in Washington was at Paradise Park SNOTEL near Mt. Rainer, with water content of 33 inches. This site would normally have 72 inches of water content on April 1. Last year at this time Paradise Park had 72.4 inches of snow water.

BASIN	PERCENT OF LAST YEAR	PERCENT OF AVERAGE
Spokane	47	40
Pend Oreille	68	53
Okanogan	69	58
Methow	47	34
Conconully Lake	38	27
Wenatchee	41	29
Chelan	58	41
Upper Yakima	33	25
Lower Yakima	34	31
Ahtanum Creek	32	32
Walla Walla	35	29
Lower Snake	56	49
Cowlitz	32	31
Lewis	19	21
White	42	39
Green	18	16
Cedar	23	20
Snoqualmie	28	28
Skykomish	32	32
Skagit	44	34
Baker	N/A	43
Nooksack	31	31
Olympic Peninsula	32	25

Precipitation

During the month of March, the National Weather Service and Natural Resources Conservation Service climate stations reported slightly below to slightly above average precipitation totals throughout Washington river basins. The highest percent of average in the state was at Glenwood, WA which reported 137% of average for a total of 4.2inches. The average for this site is 3.06 inches for March. Wenatchee reported the least at only 38% of normal. The wettest spot in the state was reported at Swift Creek SNOTEL in the Lewis River Basin with a March accumulation of 19.4 inches. Basin averages for the water year remain below average with the Olympic Peninsula and North Puget Sound reporting the highest at 76% and the Lower Yakima and Walla Walla river basins with the lowest at 57% of average.

RIVER BASIN	MARCH PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane	120	75
Colville-Pend Oreille	111	74
Okanogan-Methow	88	70
Wenatchee-Chelan	93	65
Upper Yakima	89	59
Lower Yakima	94	57
Walla Walla	87	57
Lower Snake	111	77
Cowlitz-Lewis	100	61
White-Green-Puyallup	97	63
Central Puget Sound	95	74
North Puget Sound	97	76
Olympic Peninsula	77	76

Reservoir

Seasonal reservoir levels in Washington vary greatly due to specific watershed management practices required in preparation for irrigation season, fisheries management, power generation and flood control. Reservoir storage in the Yakima Basin was 541,000-acre feet, 98% of average for the Upper Reaches and 197,000-acre feet, 130% of average for Rimrock and Bumping Lakes. Storage at the Okanogan reservoirs was 66% of average for April 1. The power generation reservoirs included the following: Coeur d'Alene Lake, 190,000 acre feet, 112% of average and 67% of capacity; Chelan Lake, 468,000-acre feet, 216% of average and 69% of capacity; and the Skagit River reservoirs at 149% of average and 78% of capacity.

BASIN	PERCENT OF CAPACITY	CURRENT STORAGE AS PERCENT OF AVERAGE
Spokane	79	112
Colville-Pend Oreille	N/A	N/A
Okanogan-Methow	50	66
Wenatchee-Chelan	69	216
Upper Yakima	65	98
Lower Yakima	85	130
North Puget Sound	78	149

For more information contact your local Natural Resources Conservation Service office.

Streamflow

April forecasts vary from 88% of average for the Columbia River at Birchbank to 27% of average for Chamokane Creek near Long Lake. April-September forecasts for some Western Washington streams include the Cedar River near Cedar Falls, 53%; Green River, 48%; and Skagit River, 56%. Some Eastern Washington streams include the Yakima River near Parker, 40%: Wenatchee River at Plain, 54%; and Spokane River near Post Falls, 47%. Volumetric forecasts are developed using current, historic and average snowpack, precipitation and streamflow data collected and coordinated by organizations cooperating with NRCS.

Statewide March streamflows also varied but were mostly below average. The Kettle River near Laurier had the highest reported flows with 198% of average. The Yakima River at Kiona with 26% of average was the lowest in the state. Other streamflows were the following percentage of average: the Cowlitz at Castle Rock, 57%; the Spokane at Spokane, 56%; the Columbia below Rock Island Dam, 88%; and the Cle Elum near Roslyn, 67%.

BASIN	PERCENT OF AVERAGE (50 PERCENT CHANCE OF EXCEEDENCE)
Spokane	27-52
Colville-Pend Oreille	28-88
Okanogan-Methow	35-70
Wenatchee-Chelan	49-78
Upper Yakima	42-50
Lower Yakima	31-50
Walla Walla	32-70
Lower Snake	52-59
Cowlitz-Lewis	34-66
White-Green-Puyallup	48-56
Central Puget Sound	44-56
North Puget Sound	56-63
Olympic Peninsula	52-56

STREAM	PERCENT OF AVERAGE MARCH STREAMFLOWS
Pend Oreille Below Box Canyon	79
Kettle at Laurier	198
Columbia at Birchbank	125
Spokane at Long Lake	54
Similkameen at Nighthawk	193
Okanogan at Tonasket	129
Methow at Pateros	103
Chelan at Chelan	104
Wenatchee at Pashastin	81
Yakima at Cle Elum	50
Yakima at Parker	45
Naches at Naches	45
Grande Ronde at Troy	37
Snake below Lower Granite Dam	48
SF Walla Walla near Milton Freewater	71
Columbia River at The Dalles	63
Lewis at Ariel	60
Cowlitz below Mayfield Dam	52
Skagit at Concrete	66

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BASIN SUMMARY OF SNOW COURSE DATA

APRIL 2005

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
ABERDEEN LAKE CAN.	4000	4/04/05	6	2.3	5.4	5.6
ALPINE MEADOWS	3500	4/05/05	29	13.0E	55.0	42.3
ALPINE MEADOWS SNTL	3500	4/01/05	---	18.7	48.7	43.6
AMBROSE	6480	3/21/05	19	4.9	10.1	12.4
ASHLEY DIVIDE	4820	3/29/05	7	1.9	3.4	6.0
BADGER PASS	6900	3/31/05	62	21.6	30.6	--
BADGER PASS SNOTEL	6900	4/01/05	60	19.4	28.8	35.3
BAIRD #2	3220	3/29/05	14	4.6	7.1	--
BAREE CREEK	5500	4/01/05	---	20.8E	34.2	43.1
BAREE MIDWAY	4600	4/01/05	48	14.4	30.8	33.0
BAREE TRAIL	3800	4/01/05	12	2.6	7.9	7.7
BARKER LAKES SNOTEL	8250	4/01/05	45	10.5	11.8	14.6
BASIN CREEK SNOTEL	7180	4/01/05	23	5.2	6.5	8.7
BASSOO PEAK	5150	3/31/05	15	3.6	5.9	9.7
BEAVER CREEK TRAIL	2200	3/31/05	0	.0	10.3	11.7
BEAVER PASS	3680	3/30/05	17	4.4	21.7	28.8
BEAVER PASS SNOTEL	3680	4/01/05	56	16.6	32.2	--
BERNE-MILL CREEK (d)	3170	3/31/05	31	8.2	25.8	28.1
BIG CREEK	6750	4/01/05	---	30.4E	33.7	43.7
BIG WHITE MTN CAN.	5510	4/03/05	54	17.2	18.1	20.0
BLACK MOUNTAIN	7750	3/25/05	40	10.0	12.6	14.6
BLACK PINE SNOTEL	7100	4/01/05	27	7.3	7.4	12.5
BLACKWALL PEAK CAN.	6370	4/01/05	---	16.9e	27.2	35.1
BLEWETT PASS #2	4270	3/30/05	15	2.7	8.1	14.7
BLEWETT PASS#2SNOTEL	4270	4/01/05	6	2.0	5.4	16.4
BLUE LAKE	5900	3/31/05	42	14.4	19.4	23.7
BRENDA MINE CAN.	4450	4/01/05	---	11.1e	12.5	12.5
BRIEF	1600	3/30/05	0	.0	.0	2.5
BROOKMERE CAN.	3000	4/01/05	6	2.0	5.2	7.9
BROWN TOP AM	6000	3/30/05	82	27.0	52.2	60.8
BRUSH CREEK TIMBER	5000	3/28/05	6	2.0	4.5	8.1
BULL MOUNTAIN	6600	3/31/05	7	1.9	.0	5.9
BUMPING LAKE (NEW)	3400	3/29/05	13	1.7	10.8	17.6
BUMPING RIDGE SNOTEL	4600	4/01/05	23	5.4	26.3	28.6
BUNCHGRASS MDWSNOTEL	5000	4/01/05	58	18.8	25.4	30.2
BURNT MOUNTAIN PIL	4200	4/01/05	6	2.1	16.7	--
BUTTE CREEK	4070	3/28/05	16	4.9	6.4	8.3
BUTTERMILK BUTTE		3/29/05	22	6.7	--	--
CAMP MISERY	6400	3/31/05	108	30.8	41.4	49.3
CARMI CAN.	4100	4/03/05	8	2.5	3.6	5.6
CEDAR GROVE	3760	3/30/05	22	5.8	10.0	11.4
CHESSMAN RESERVOIR	6200	3/25/05	12	2.1	.9	3.5
CHEWALAH #2	4930	3/31/05	28	8.1	--	--
CHICKEN CREEK	4060	3/29/05	27	8.6	16.0	15.2
CHIWAUKUM G.S.	2500	3/31/05	5	1.8	3.1	9.2
CITY CABIN	2390	3/29/05	5	1.2	9.5	11.1
COLD CREEK STRIP	6020	3/28/05	21	5.5	6.9	--
COLOCKUM PASS	5370	3/31/05	14	3.3	13.3	16.3
COMBINATION SNOTEL	5600	4/01/05	8	2.6	1.0	4.9
COPPER BOTTOM SNOTEL	5200	4/01/05	0	.0	.2	11.0
COPPER CAMP	6950	3/28/05	36	10.8	--	--
COPPER CREEK	5700	3/28/05	4	.5	7.6	13.3
COPPER MOUNTAIN	7700	3/26/05	33	8.0	8.9	11.2
CORNER CREEK	3150	3/30/05	0	.0	8.3	5.9
CORRAL PASS SNOTEL	6000	4/01/05	---	12.6	35.6	34.9
COTTONWOOD CREEK	6400	3/25/05	19	4.8	9.0	8.3
COUGAR MTN. SNOTEL	3200	4/01/05	7	1.5	12.0	17.7
COX VALLEY	4500	4/01/05	34	7.8	34.3	38.7
COYOTE HILL	4200	3/31/05	12	4.1	5.8	8.7
DALY CREEK SNOTEL	5780	4/01/05	24	7.7	7.8	11.1
DEER PARK	5200	4/03/05	13	2.3	8.8	18.8
DESERT MOUNTAIN	5600	3/31/05	34	9.5	11.9	14.7
DEVILS PARK	5900	3/30/05	64	17.8	40.0	44.2
DISCOVERY BASIN	7050	3/29/05	24	5.8	9.2	10.4
DIX HILL	6400	3/26/05	12	3.6	5.3	10.3
DOMMERIE FLATS	2200	3/30/05	0	.0	.0	3.8
DUNCAN RIDGE	5370	3/28/05	5	1.1	--	--
DUNGENESS SNOTEL	4100	4/01/05	0	.0	2.7	--
EAST FORK R.S.	5400	3/22/05	4	1.0	2.2	4.7
EL DORADO MINE	7800	3/28/05	46	11.3	17.4	20.2
ELBOW LAKE SNOTEL	3200	4/01/05	25	7.1	36.8	39.2
EMERY CREEK	4350	3/31/05	28	9.1	16.1	--
EMERY CREEK SNOTEL	4350	4/01/05	24	7.1	12.1	15.3
ENDERBY CAN.	5800	3/30/05	93	30.9	31.4	40.1
ESPERON CK. MID CAN.	4250	3/27/05	35	9.5	13.7	14.6
ESPERON CK. UP CAN.	5050	3/27/05	38	11.5	15.4	17.1
FARRON CAN.	4000	3/30/05	31	10.4	11.2	12.5
FATTY CREEK	5500	3/31/05	54	14.8	19.8	24.3
FISH CREEK	8000	3/25/05	25	4.6	7.9	9.9
FISH LAKE	3370	3/29/05	38	8.1	27.7	31.5
FISH LAKE SNOTEL	3370	4/01/05	38	10.1	25.3	34.5
FLATTOP MTN SNOTEL	6300	4/01/05	101	31.0	36.1	45.1
FLEECER RIDGE	7500	3/31/05	20	5.4	6.2	10.9
FOURTH OF JULY SUM	3200	4/01/05	3	.8	.0	5.7
FRED BURR PASS	8000	3/29/05	45	11.4	20.2	23.5
FREEZEOUT CK. TRAIL	3500	3/31/05	6	4.8	7.8	11.3
FROHNER MDWS SNOTEL	6480	4/01/05	24	7.2	5.8	8.0
FROST MEADOWS	4630	3/31/05	19	4.5	15.5	--
GOAT CREEK	3600	3/28/05	3	1.0	1.2	3.6
GOLD CREEK LAKE	7200	3/28/05	36	8.3	13.3	14.7
GOLD MTN		3/30/05	10	2.8	--	--
GRASS MOUNTAIN #2	2900	4/04/05	0	.0	1.6	10.0
GRAVE CREEK	4300	3/30/05	28	8.5	15.2	--
GRAVE CRK SNOTEL	4300	4/01/05	25	8.9	14.4	15.6
GRAYSTOKE LAKE CAN.	5500	4/01/05	44	13.8	11.2	16.0
GREEN LAKE	6000	4/01/05	---	13.9E	36.0	35.0
GREEN LAKE SNOTEL	6000	4/01/05	32	9.8	23.7	23.0
GREYBACK RES CAN.	4700	4/01/05	30	7.8	8.5	9.2
GRIFFIN CR DIVIDE	5150	3/31/05	17	3.4	4.0	10.3
GROUSE CAMP SNOTEL	5380	4/01/05	28	7.4	16.9	19.8
GUNSIGHT LAKE	6300	3/31/05	70	22.4	34.9	39.3
HAMILTON HILL CAN.	4550	3/31/05	11	3.3	10.5	14.0
HAND CREEK	5030	3/28/05	12	3.2	9.1	--
HAND CREEK SNOTEL	5030	4/01/05	11	2.8	7.4	11.7
HARTS PASS SNOTEL	6500	4/01/05	57	16.9	34.8	46.3
HEART LAKE TRAIL	4800	3/31/05	33	11.7	16.3	20.6
HELL ROARING DIVIDE	5770	3/27/05	58	18.4	25.9	29.5
HERRIG JUNCTION	4850	3/29/05	50	15.9	24.8	26.0
HIGH RIDGE SNOTEL	4980	4/01/05	22	7.3	21.7	23.1
HOLBROOK	4530	3/31/05	0	.0	.4	8.2
HOODOO BASIN SNOTEL	6050	4/01/05	90	26.1	34.5	45.3
HUCKLEBERRY SNOTEL	2000	4/01/05	0	.0	.0	--
HUMBOLDT GLCH SNOTEL	4250	4/01/05	---	2.4	9.9	11.2
HURRICANE	4500	4/01/05	---	3.1E	7.5	19.1
INTERGAARD	6450	3/27/05	8	2.3	5.9	7.7
IRENE'S CAMP	5530	3/28/05	19	4.1	8.1	--
ISINTOK LAKE CAN.	5100	3/30/05	9	2.8	5.7	7.2
JUNE LAKE SNOTEL	3200	4/01/05	23	6.8	37.1	35.7
KELLER RIDGE	3700	3/29/05	0	.0	--	--
KISHENEHN	3890	3/28/05	8	2.1	7.4	6.8
KIT CARSON PASTURE	4950	4/01/05	---	2.0E	3.7	8.1
KLESILKWA CAN.	3450	3/30/05	5	.7	5.6	11.5
KRAFT CREEK SNOTEL	4750	4/01/05	5	1.9	1.3	14.1
LESTER CREEK	3100	4/04/05	4	.9E	19.4	21.4
LIGHTNING LAKE CAN.	3700	4/02/05	10	2.4	10.8	12.0
LOGAN CREEK	4300	3/28/05	13	4.0	5.3	6.7
LOLO PASS SNOTEL	5240	4/01/05	51	15.4	25.5	30.3
LONE PINE SNOTEL	3800	4/01/05	---	9.6	43.1	36.4
LOOKOUT SNOTEL	5140	4/01/05	57	15.0	25.8	31.8
LOST HORSE	5940	4/01/05	---	15.4E	27.3	30.7
LOST HORSE MTN CAN.	6300	3/28/05	20	5.4	9.1	9.4
LOST HORSE SNOTEL	5000	4/01/05	8	3.4	17.8	18.3
LOST LAKE SNOTEL	6110	4/01/05	---	34.3	47.7	60.0
LOUP LOUP CAMPGROUND		3/25/05	4	1.2	6.7	--
LOWER SANDS CREEK #2	3120	3/30/05	21	6.6	21.1	18.9
LUBRECHT FOREST NO 3	5450	4/01/05	3	.8	1.1	5.7
LUBRECHT FOREST NO 4	4650	4/01/05	0	.0	.0	1.3
LUBRECHT FOREST NO 6	4040	4/01/05	0	.0	.0	1.6
LUBRECHT HYDROPLOT	4200	4/01/05	0	.0	.0	2.9
LUBRECHT SNOTEL	4680	4/01/05	0	.0	.0	3.6
LYMAN LAKE SNOTEL	5900	4/01/05	---	30.8	41.4	65.4
LYNN LAKE	4000	4/04/05	22	5.3	25.7	20.4
MARIAS PASS	5250	3/31/05	19	5.4	10.8	16.8
MCCULLOCH CAN.	4200	4/01/05	12	3.2	3.2	6.1
MEADOWS CABIN	1900	3/30/05	4	7.4	.0	4.0
MEADOWS PASS SNOTEL	3240	4/01/05	18	4.4	20.8	23.9
MERRITT	2140	3/31/05	0	.0	1.3	12.1
M F NOOKSACK SNOTEL	4980	4/01/05	65	21.8	66.0	--
MICA CREEK SNOTEL	4750	4/01/05	28	9.4	23.8	25.1
MINERAL CREEK	4000	3/24/05	7	1.2	13.3	17.4
MINERS RIDGE SNOTEL	6200	4/01/05	---	25.6	40.0	53.0
MISSEZULA MTN CAN.	5080	3/29/05	12	3.5	6.8	9.5
MISSION CREEK CAN.	5840	4/01/05	---	22.2E	20.8	20.0
MISSION RIDGE	5000	3/30/05	22	4.7	15.0	17.4
MORRISSEY RIDGE CAN.	6100	4/01/05	---	20.7E	--	27.8
MORSE LAKE SNOTEL	5400	4/01/05	---	22.6	48.6	55.5
MOSES MOUNTAIN (2)	4800	3/31/05	17	5.4	10.0	22.7
MOSES MTN SNOTEL	4800	4/01/05	24	6.3	10.5	15.9
MOSES PEAK	6650	3/31/05	42	12.4	16.5	15.0
MOSQUITO RDG SNOTEL	5200	4/01/05	---	24.8	37.2	35.8
MOULTON RESERVOIR	6850	3/25/05	12	2.7	5.4	6.9
MOUNT CRAG SNOTEL	4050	4/01/05	38	13.9	30.7	30.8
MT. KOBAU CAN.	5500	3/30/05	29	8.0	9.4	12.5
MOUNT TOLMAN	2000	3/30/05	0	.0	--	--
MOWICH SNOTEL	3150	4/01/05	0	.0	.0	--
MOUNT GARDNER	3300	3/29/05	12	2.5	--	12.5
MOUNT GARDNER SNOTEL	2860	4/01/05	---	2.0	11.1	13.0
MUTTON CREEK #1	5700	3/25/05	12	2.2	10.8	13.9

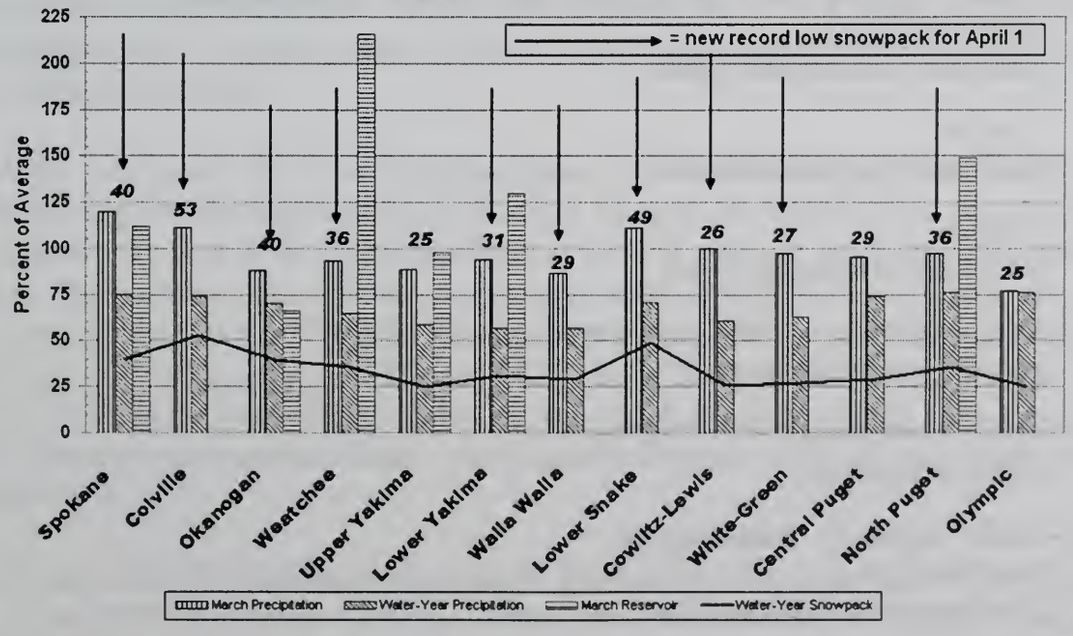
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
N.F. ELK CR SNOTEL	6250	4/01/05	28	7.6	9.8	12.4
NEVADA RIDGE SNOTEL	7020	4/01/05	35	9.9	12.0	15.5
NEW HOZOMEEN LAKE	2800	3/30/05	0	.0	5.5	10.0
NEZ PERCE CMP SNOTEL	5650	4/01/05	30	7.9	11.9	14.7
NEZ PERCE PASS	6570	4/01/05	---	6.5E	13.0	17.8
NOISY BASIN	6040	3/31/05	100	32.3	38.6	--
NOISY BASIN SNOTEL	6040	4/01/05	98	30.9	34.6	40.9
NORTH FORK JOCKO	6330	3/31/05	95	33.0	38.5	--
OLALLIE MDWS SNOTEL	3960	4/01/05	46	16.0	47.7	55.9
OLALLIE MEADOWS	3630	4/01/05	---	6.0E	28.7	38.7
OPHIR PARK	7150	3/26/05	27	7.4	12.0	16.7
OYAMA LAKE CAN.	4100	4/01/05	7	4.2	6.3	6.7
PALISADE CREEK	8250	3/31/05	48	12.8	25.9	29.8
PARADISE PARK SNOTEL	5500	4/01/05	---	33.0	72.4	71.9
PARK CK RIDGE SNOTEL	4600	4/01/05	49	13.8	36.2	47.6
PETERSON MDW SNOTEL	7200	4/01/05	26	5.9	8.8	10.5
PIGTAIL PEAK SNOTEL	5900	4/01/05	70	20.4	58.2	53.2
PIKE CREEK	5930	3/29/05	46	12.9	19.0	--
PIKE CREEK SNOTEL	5930	4/01/05	49	15.0	20.3	27.5
PIPESTONE PASS	7200	3/26/05	13	2.1	3.2	5.7
POPE RIDGE SNOTEL	3540	4/01/05	20	7.1	10.3	18.4
POSTILL LAKE CAN.	4200	3/31/05	24	6.7	9.0	8.8
POTATO HILL SNOTEL	4500	4/01/05	---	2.6	24.1	25.3
QUARTZ PEAK SNOTEL	4700	4/01/05	6	1.7	17.9	21.2
RAGGED RIDGE	3330	4/01/05	0	.0	1.0	4.1
RAINY PASS SNOTEL	4780	4/01/05	59	15.6	30.4	44.0
REX RIVER SNOTEL	1900	4/01/05	26	7.2	31.4	31.2
ROCKER PEAK SNOTEL	8000	4/01/05	37	9.1	11.7	14.3
ROLAND SUMMIT	5120	3/31/05	55	17.1	31.4	36.4
ROUND TOP MTN	4020	4/01/05	4	.8	9.7	--
RUSTY CREEK	4000	3/25/05	3	.7	2.9	5.5
SADDLE MTN SNOTEL	7900	4/01/05	57	14.7	20.1	25.8
SAGE CREEK SADDLE	4080	3/30/05	11	1.9	16.1	16.6
SALMON MDWS SNOTEL	4500	4/01/05	19	5.4	8.0	11.1
SASSE RIDGE SNOTEL	4200	4/01/05	42	14.3	29.0	37.3
SATUS PASS	4030	3/31/05	1	.2	8.2	--
SAVAGE PASS SNOTEL	6170	4/01/05	53	15.1	22.9	26.5
SAWMILL RIDGE	4700	4/04/05	25	7.0	33.3	33.5
SCHREIBERS MDW AM	3400	4/04/05	63	22.4	--	52.6
SENTINEL BT SNOTEL	4920	4/01/05	15	5.1	7.7	--
SHEEP CANYON SNOTEL	4050	4/01/05	---	5.1	33.4	37.8
SHERWIN SNOTEL	3200	4/01/05	---	.8	6.2	10.1
SILVER STAR MTN CAN.	5600	4/03/05	72	26.6	25.1	29.9
SKALKAHO SNOTEL	7260	4/01/05	47	12.4	18.8	24.3
SKITWISH RIDGE	5110	3/30/05	36	9.1	32.6	30.2
SKOOKUM CREEK SNOTEL	3920	4/01/05	15	4.4	30.2	26.3
SLIDE ROCK MOUNTAIN	7100	3/27/05	25	6.2	11.3	15.5
SOURDOUGH GULCH SNTL	4000	4/01/05	0	.0	.0	--

SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1971-00
SPENCER MDW SNOTEL	3400	4/01/05	---	4.2	32.1	30.8
SPIRIT LAKE SNOTEL	3100	4/01/05	---	1.6	1.1	--
SPOTTED BEAR MTN.	7000	3/31/05	13	3.8	11.4	14.1
SPRUCE SPRINGS SNTL	5700	4/01/05	9	2.4	8.0	--
STARVATION CANYON	6750	3/25/05	22	6.2	14.2	19.5
STAHL PEAK SNOTEL	6030	4/01/05	94	28.8	30.2	35.3
STAMPEDE PASS SNOTEL	3860	4/01/05	31	9.1	38.0	45.3
STEMPLE PASS	6600	3/27/05	17	4.6	7.2	10.2
STEVENS PASS SNOTEL	4070	4/01/05	45	12.1	32.6	42.6
STEVENS PASS SAND SD	3700	3/31/05	27	5.5	24.8	33.3
STORM LAKE	7780	3/31/05	37	8.3	11.8	13.3
STRANGER MOUNTAIN	4230	3/31/05	13	4.8	9.1	12.2
STRYKER BASIN	6180	3/29/05	70	21.7	26.8	31.9
STUART MOUNTAIN	7400	3/31/05	66	21.8	27.9	--
SUMMERLAND RES CAN.	4200	3/30/05	18	4.6	7.2	8.9
SUNSET SNOTEL	5540	4/01/05	---	11.4	17.6	31.5
SURPRISE LKS SNOTEL	4250	4/01/05	---	10.4	50.1	46.1
SWAMP CREEK SNOTEL	4000	4/01/05	5	1.6	12.2	--
TEN MILE LOWER	6600	3/26/05	17	3.7	4.8	7.0
TEN MILE MIDDLE	6800	3/25/05	28	6.1	8.3	11.4
THUNDER BASIN SNOTEL	4200	4/01/05	---	13.9	24.6	33.7
THUNDER BASIN	4200	3/30/05	28	3.2	17.8	21.9
THOMPSON CREEK	2500	4/01/05	0	.0	.0	--
THOMPSON RIDGE		3/30/05	16	4.9	--	--
TINKHAM CREEK SNOTEL	3000	4/01/05	---	6.7	21.5	30.0
TOATS COULEE	2850	3/28/05	0	.0	.0	1.4
TOUCHET SNOTEL	5530	4/01/05	39	9.7	27.0	34.7
TRINKUS LAKE	6100	3/31/05	85	28.6	33.0	42.0
TROUGH #2 SNOTEL	5310	4/01/05	8	2.2	9.6	10.0
TROUT CREEK CAN.	5650	4/02/05	14	4.2	14.2	7.2
TRUMAN CREEK	4060	3/29/05	4	1.1	1.5	3.7
TUNNEL AVENUE	2450	3/30/05	14	3.6	13.1	19.2
TV MOUNTAIN	6800	3/31/05	41	11.8	15.5	18.5
TWELVEMILE SNOTEL	5600	4/01/05	22	6.8	12.0	17.5
TWIN CAMP	4100	4/04/05	10	3.0	19.6	24.1
TWIN CREEKS	3580	3/31/05	0	.0	9.5	9.6
TWIN LAKES	2700	3/30/05	0	.0	--	4.6
TWIN LAKES SNOTEL	6400	4/01/05	72	23.4	38.3	39.7
UPPER HOLLAND LAKE	6200	3/31/05	65	21.2	29.4	34.6
UPPER WHEELER SNOTEL	4400	4/01/05	15	7.3	15.7	13.1
VASEUX CREEK CAN.	4250	4/01/05	4	1.6	3.8	6.2
WARM SPRINGS SNOTEL	7800	4/01/05	48	12.4	19.3	21.2
WATERHOLE SNOTEL	5000	4/01/05	30	7.9	23.9	--
WEASEL DIVIDE	5450	3/30/05	73	23.1	29.0	32.9
WELLS CREEK SNOTEL	4200	4/01/05	50	15.1	34.4	32.2
WHITE PASS ES SNOTEL	4500	4/01/05	17	4.1	21.8	23.9
WHITE ROCKS MTN CAN.	7200	3/31/05	48	14.9	19.5	23.1

NRCS Natural Resources Conservation Service

April 1, 2005 - Snowpack, Precipitation and Reservoir Conditions at a Glance

(Water Year = October 1, 2004 - Current Date)



USDA NRCS

Natural Resources Conservation Service

Washington State
Snow, Water and Climate Services

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Helpful Internet Addresses

NRCS Snow Survey and Climate Services Homepages

Washington:
http://www.wa.nrcs.usda.gov/snow

Oregon:
http://www.or.nrcs.usda.gov/snow

Idaho:
http://www.id.nrcs.usda.gov/snow

National Water and Climate Center (NWCC):
http://www.wcc.nrcs.usda.gov

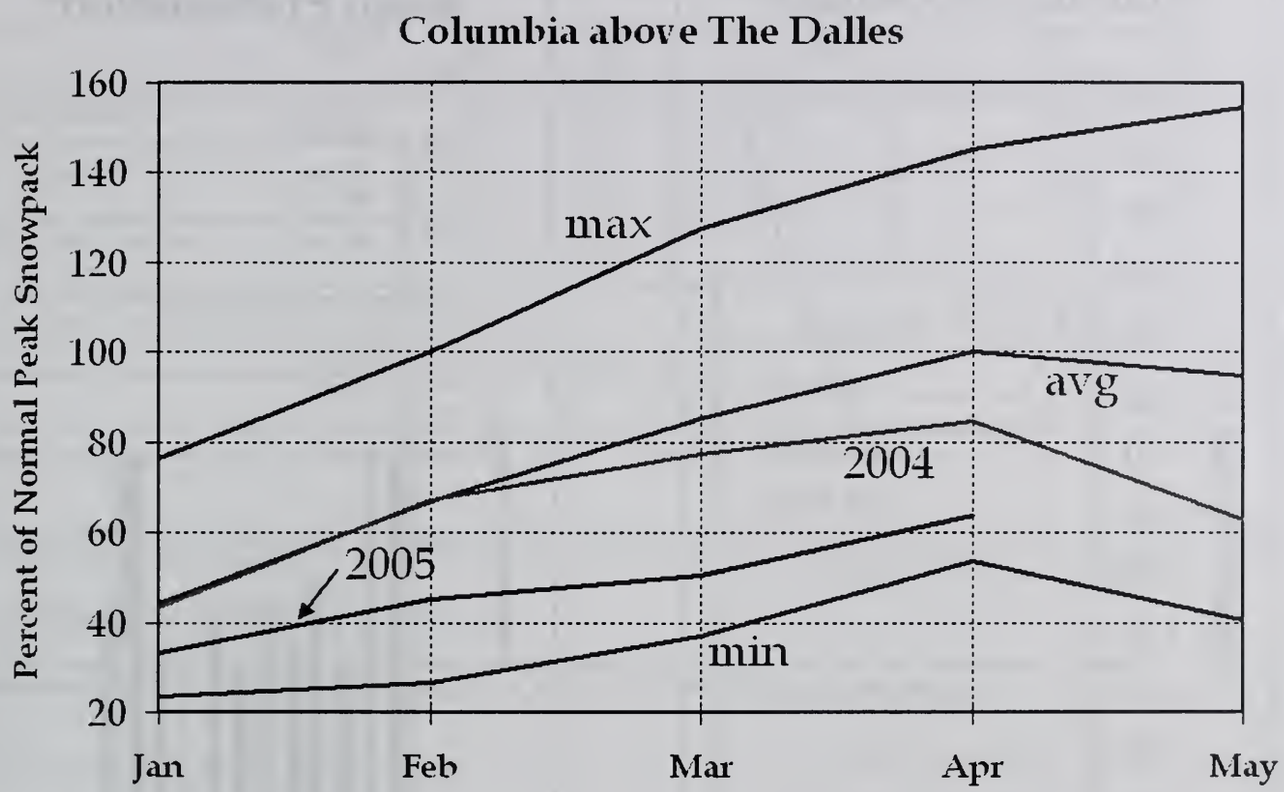
NWCC Anonymous FTP Server:
ftp.wcc.nrcs.usda.gov

USDA-NRCS Agency Homepages

Washington:
http://www.wa.nrcs.usda.gov/nrcs

NRCS National:
http://www.nrcs.usda.gov

Columbia Basin Snowpack Summary



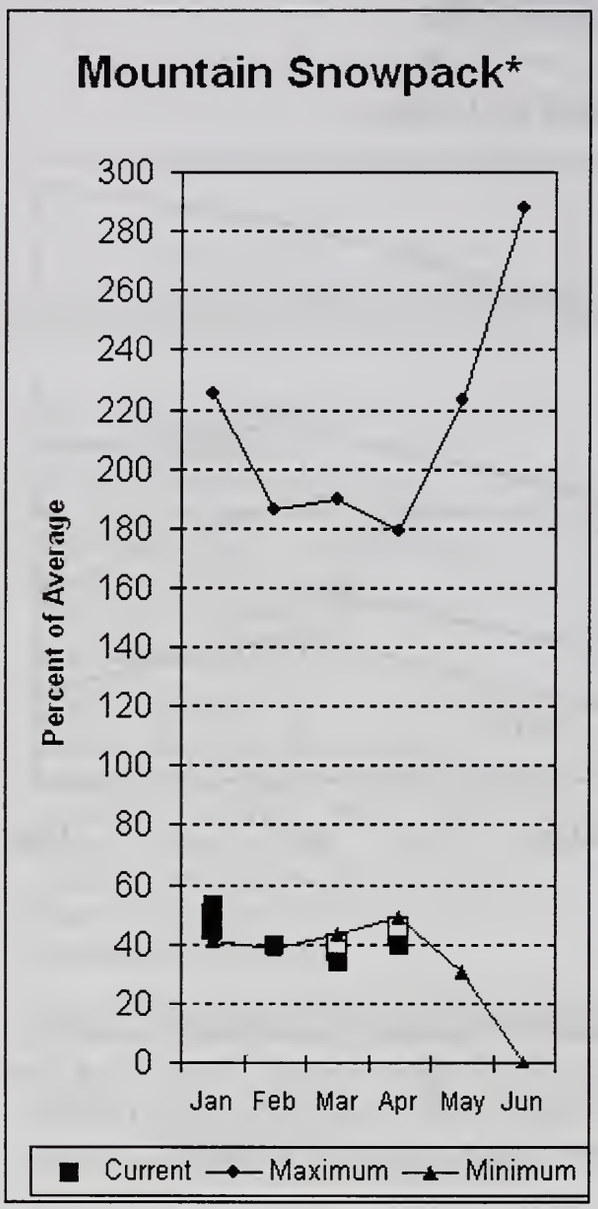
April 1, 2005

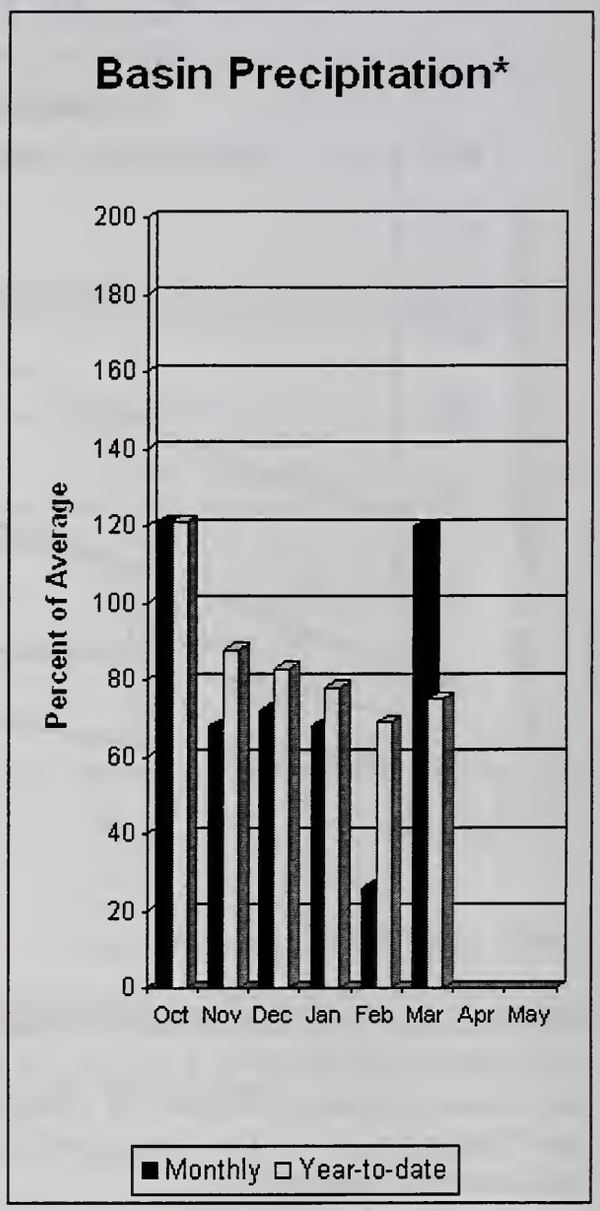
Precipitation was hit 'n miss over the Columbia Basin. The Cascades received above average precipitation during March. Likewise, NE Washington, the Idaho panhandle, Boise, Clark Fork and Flathead basins received above average precipitation. On the other hand, central Oregon and Washington, lower Owyhee, upper Salmon, upper Snake, and Bitterroot basins received below average precipitation.

Temperatures over nearly all of the Columbia Basin were above average. Consequently, snowpacks throughout the region didn't increase as much as one might think. The Canadian snowpack is still the best in the Columbia Basin at 81% of average. It quickly goes downhill from there. The Kootenai and the Kettle snowpacks, most of which are in Canada, are at 62% and 73%, respectively. In the Columbia Basin below Grand Coolee, the North Cascades snowpack is at 42% of average; the Yakima - 32%; John Day/Umatilla - 33%; and the Deschutes - 51%. In the Snake River Basin, the snowpack above American Falls Reservoir is at 79% of average; south-central Snake - 66%; eastern Oregon - 50%; Salmon - 59%; and Clearwater - 55%.

The combined Columbia Basin snowpack above The Dalles is currently at 64% of average. On March 1, it was 59% of average. Last year at this time, the total Columbia Basin snowpack was 91% of average. It should also be noted that the total Columbia snowpack is at only 64% of its normal peak.

Spokane River Basin





*Based on selected stations

The April 1 forecasts for summer runoff within the Spokane River Basin are 47% of average near Post Falls and 52% at Long Lake. The Chamokane River near Long Lake forecasted to have 27% of average flows for the May-August period, setting a new record low flow by 700-acre feet. The forecast is based on a basin snowpack that is 40% of average and precipitation that is 75% of average for the water year. Precipitation for March was above normal at 120% of average. Streamflow on the Spokane River at Long Lake was 54% of average for March. April 1 storage in Coeur d'Alene Lake was 190,000-acre feet, 112% of average and 79% of capacity. Snowpack at Quartz Peak SNOTEL site was 8% of average with 1.7 inches of water content. Average temperatures in the Spokane basin were 3 degree above normal March and 2 degrees above for the water year.

For more information contact your local Natural Resources Conservation Service office.

SPOKANE RIVER BASIN
Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SPOKANE near Post Falls (2)	APR-SEP	760	1055	1250	47	1450	1740	2650
	APR-JUL	730	1010	1200	47	1390	1670	2550
SPOKANE at Long Lake (2)	APR-JUL	875	1210	1440	51	1670	2010	2850
	APR-SEP	990	1350	1590	52	1830	2190	3070
CHAMOKANE CREEK near Long Lake	MAY-AUG	1.8	2.3	2.7	27	4.2	6.3	10.2

SPOKANE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
COEUR D'ALENE	238.5	189.5	160.5	169.5

SPOKANE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2005

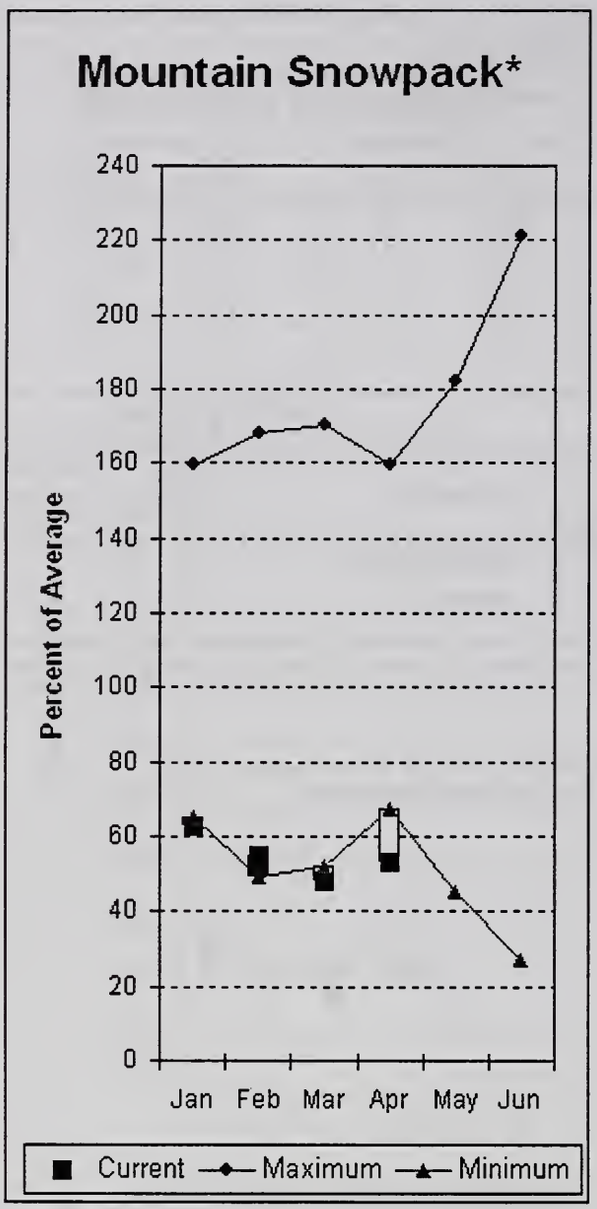
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
SPOKANE RIVER	16	47	40
NEWMAN LAKE	2	9	7

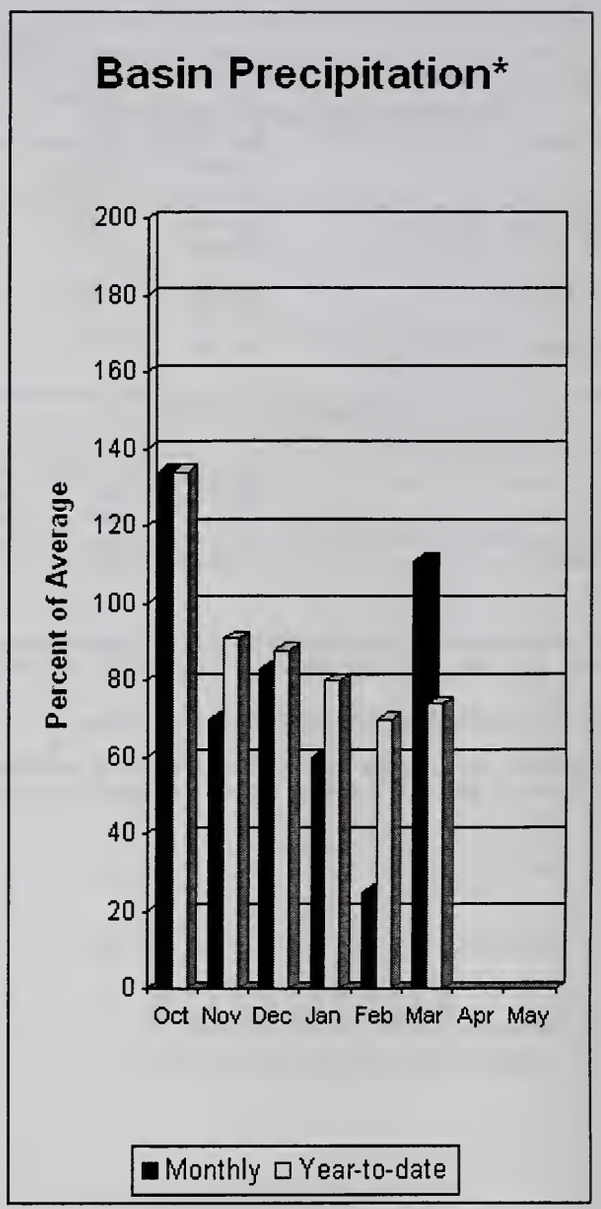
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Colville - Pend Oreille River Basins





*Based on selected stations

The April – September average forecast for the Kettle River streamflow is 81%, Colville at Kettle Falls is 28%, and Priest River near the town of Priest River is 63%. March streamflow was 79% of average on the Pend Oreille River, 125% on the Columbia at the International Boundary and 198% on the Kettle River. April 1 snow cover was 53% of average in the Pend Oreille Basin River Basin, 39% in the Colville River Basin and 76% in the Kettle River Basin (including Canadian data). Bunchgrass Meadows SNOTEL site had 18.8 inches of snow water on the snow pillow. Normally Bunchgrass would have 30.2 inches on April 1. Precipitation during March was 111% of average, bringing the year-to-date precipitation to 74% of average. Average temperatures were 3 degrees above normal for March and 2 degrees above for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
PEND OREILLE Lake Inflow (2)	APR-JUL	4800	6020	6850	54	7680	8900	12700
	APR-SEP	5230	6560	7470	54	8380	9710	13900
PRIEST near Priest River (1,2)	APR-JUL	380	470	510	63	550	640	815
	APR-SEP	325	475	545	63	615	765	870
PEND OREILLE bl Box Canyon (2)	APR-JUL	5240	6360	7120	55	7880	9000	12900
	APR-SEP	5530	6860	7770	55	8680	10010	14100
COLVILLE at Kettle Falls	APR-SEP	30	36	40	28	55	76	141
	APR-JUL	28	33	37	29	50	70	128
KETTLE near Laurier	APR-SEP	1310	1480	1600	81	1720	1890	1970
	APR-JUL	1260	1410	1510	81	1610	1760	1870
COLUMBIA at Birchbank (1,2)	APR-JUL	26408	29291	30600	88	31910	34790	34900
	APR-SEP	32849	36460	38100	88	39740	43350	43500
COLUMBIA at Grand Coulee Dm (1,2)	APR-SEP	41852	47730	50400	79	53070	58950	64000
	APR-JUL	34832	39761	42000	78	44240	49170	53800

COLVILLE - PEND OREILLE RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROOSEVELT		NO REPORT		
BANKS		NO REPORT		

COLVILLE - PEND OREILLE RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

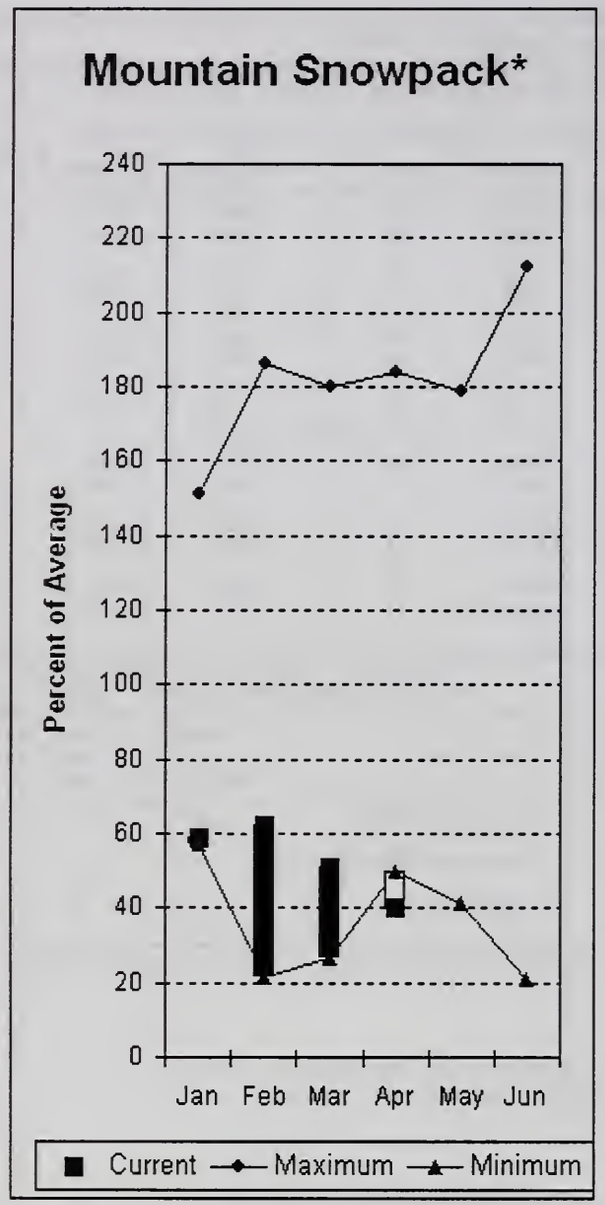
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
COLVILLE RIVER	1	58	39
PEND OREILLE RIVER	11	62	53
KETTLE RIVER	7	94	76

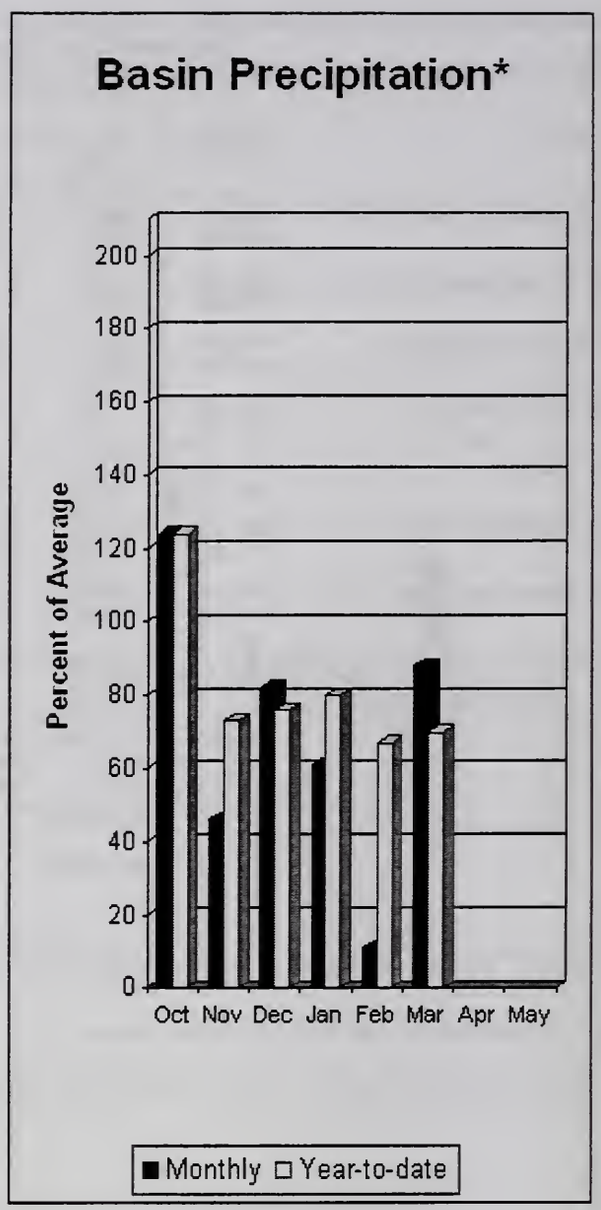
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Okanogan - Methow River Basins





*Based on selected stations

Summer runoff average forecast for the Okanogan River at Malott is 49%, Methow River is 35% and Salmon Creek is 36%. The Similkameen River is forecasted at 47% of normal flows. April 1 snow cover on the Okanogan was 58% of average, Omak Creek was 45% and the Methow was 34%, all down slightly from March 1. March precipitation in the Okanogan-Methow was 88% of average, with precipitation for the water year at 70% of average. March streamflow for the Methow River was 103% of average, 129% for the Okanogan River and 193% for the Similkameen. Snow-water content at Salmon Meadows SNOTEL was 5.4 inches. Average for this site is 11.1 inches on April 1. Combined storage in the Conconully Reservoirs was 12,000-acre feet, which is 50% of capacity and 66% of the April 1 average. Temperatures were 3 degrees above normal for March and 2 degrees above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
SIMILKAMEEN near Nighthawk (1)	APR-JUL	310	530	630	47	730	955	1350
	APR-SEP	310	560	675	47	790	1040	1450
OKANOGAN near Tonasket (1)	APR-JUL	592	704	780	49	950	1340	1580
	APR-SEP	687	799	875	49	1045	1435	1770
OKANOGAN at Malott (1)	APR-JUL	598	712	790	48	970	1370	1635
	APR-SEP	694	811	890	49	1070	1470	1826
Salmon Creek nr Conconully	APR-JUL	2.1	4.5	6.7	36	9.3	13.9	18.7
	APR-SEP	2.1	4.7	7.0	36	9.8	14.9	19.7
TOATS COULEE CREEK nr Loomis	APR-JUL	8.8	15.1	19.4	69	23	30	28
	APR-SEP	10.4	16.7	21	70	25	32	30
Beaver Creek blw SF nr Twisp	APR-SEP	1.4	4.0	5.7	47	7.4	10.0	12.1
	APR-JUL	1.1	3.6	5.3	48	7.0	9.5	11.1
METHOW RIVER near Pateros	APR-SEP	150	265	340	35	415	530	985
	APR-JUL	210	275	315	35	355	420	910

OKANOGAN - METHOW RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
SALMON LAKE	10.5	6.3	---	8.4
CONCONULLY RESERVOIR	13.0	5.4	---	9.2

OKANOGAN - METHOW RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

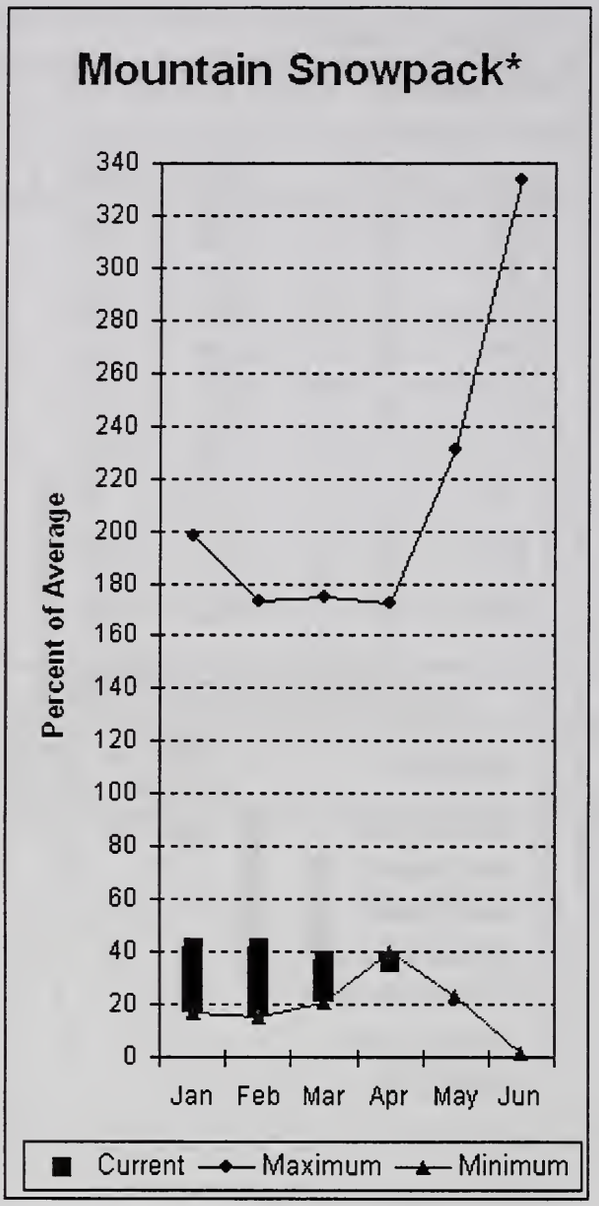
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OKANOGAN RIVER	22	69	58
OMAK CREEK	3	65	45
SANPOIL RIVER	1	0	0
SIMILKAMEEN RIVER	4	45	35
TOATS COULEE CREEK	1	0	0
CONCONULLY LAKE	3	38	27
METHOW RIVER	5	47	34

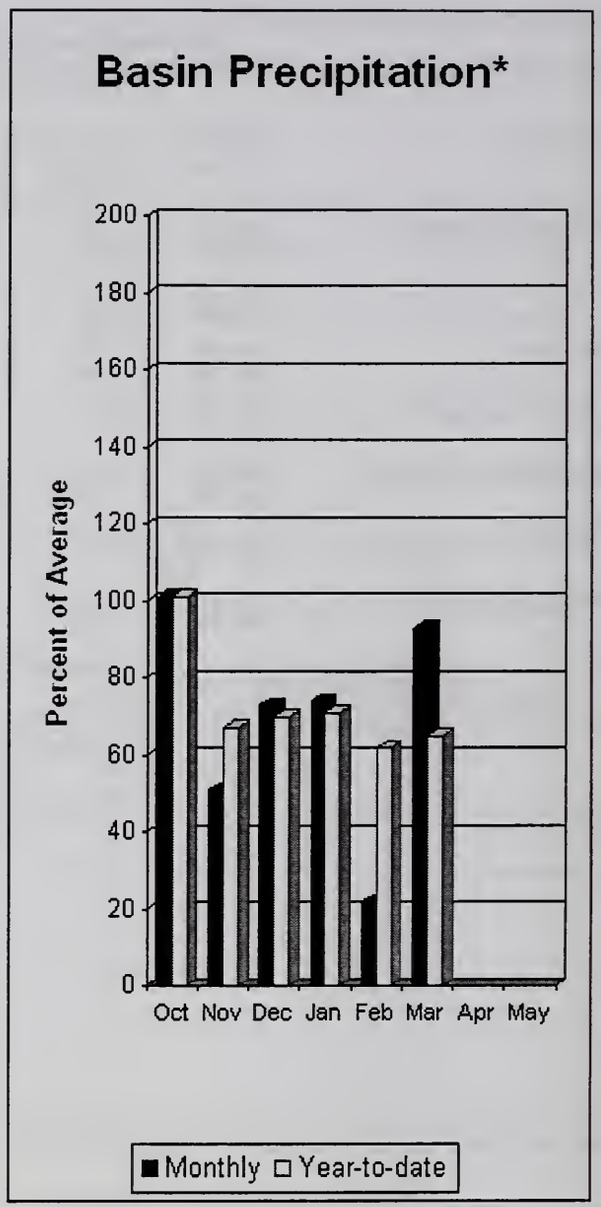
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Wenatchee - Chelan River Basins





*Based on selected stations

Precipitation during March was 93% of average in the basin and 65% for the year-to-date. Runoff for Entiat River is forecast to be 46% of average for the summer. The April-September average forecast for Chelan River is 51%, Wenatchee River at Plain is 54%, Stehekin River is 60% and Icicle Creek is 57%. Stemilt and Squilchuck creeks are all forecasted to have below average flows this year as well. March average streamflows on the Chelan River were 104% and on the Wenatchee River 81%. April 1 snowpack in the Wenatchee River Basin was 29% of average; the Chelan, 41%; the Entiat, 34%; Stemilt Creek, 56% and Colockum Creek, 21%. Reservoir storage in Lake Chelan was 468,000-acre feet, 216% of April 1 average and 69% of capacity. Lyman Lake SNOTEL had the most snow water with 30.8 inches of water. This site would normally have 65.4 inches on April 1. Temperatures were 3 degrees above normal for March and 2 degrees above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CHELAN RIVER near Chelan	APR-SEP	475	555	610	51	665	745	1190
	APR-JUL	425	495	540	51	585	655	1050
STEHEKIN near STEHEKIN	APR-SEP	405	460	500	60	540	595	830
	APR-JUL	345	390	420	60	450	495	700
ENTIAT RIVER nr Ardenvoir	APR-SEP	86	101	110	46	118	132	240
	APR-JUL	82	90	100	47	110	123	215
WENATCHEE at Plain	APR-SEP	505	590	650	54	710	795	1200
	APR-JUL	470	540	585	54	630	700	1080
WENATCHEE R. at Peshastin	APR-SEP	478	720	885	54	1050	1290	1640
	APR-JUL	334	611	800	54	989	1265	1480
STEMILT CK nr Wenatchee (miner's in)	MAY-SEP	29	52	68	49	84	107	138
ICICLE CREEK near Leavenworth	APR-SEP	157	180	195	57	210	235	345
	APR-JUL	149	167	180	56	192	212	320
COLUMBIA R. bl Rock Island Dam (2)	APR-SEP	46622	50955	53900	78	56840	61180	69500
	APR-JUL	37324	42014	45200	77	48390	53080	59000

WENATCHEE - CHELAN RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
CHELAN LAKE	676.1	467.6	---	216.3

WENATCHEE - CHELAN RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

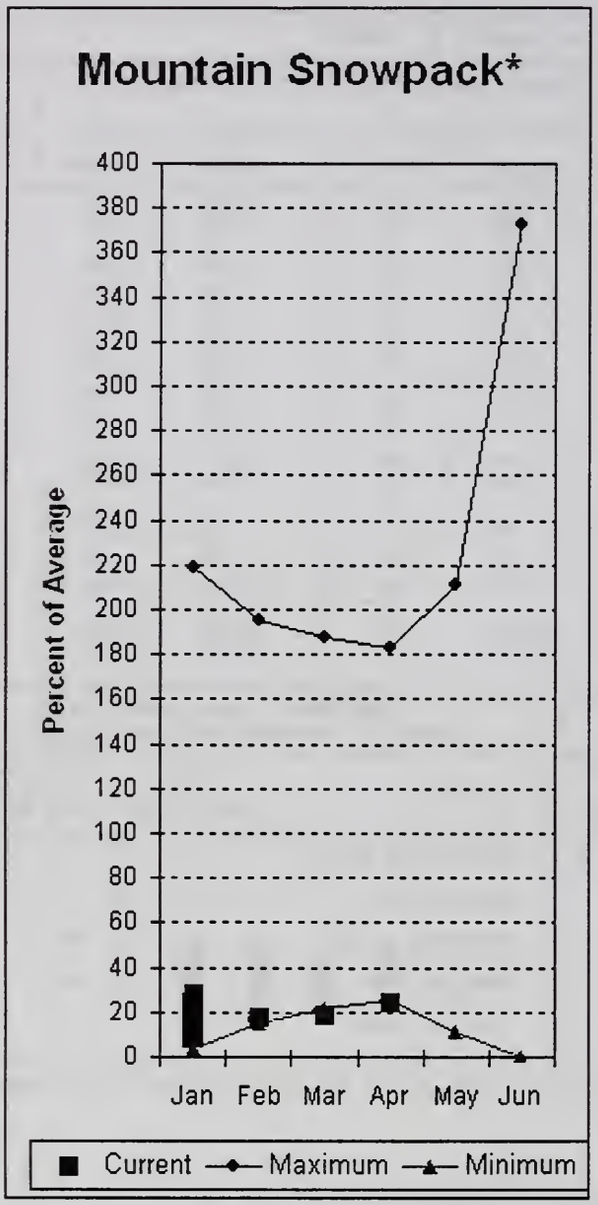
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CHELAN LAKE BASIN	4	58	41
ENTIAT RIVER	2	69	34
WENATCHEE RIVER	13	41	29
STEMILT CREEK	1	46	56
COLOCKUM CREEK	2	24	21

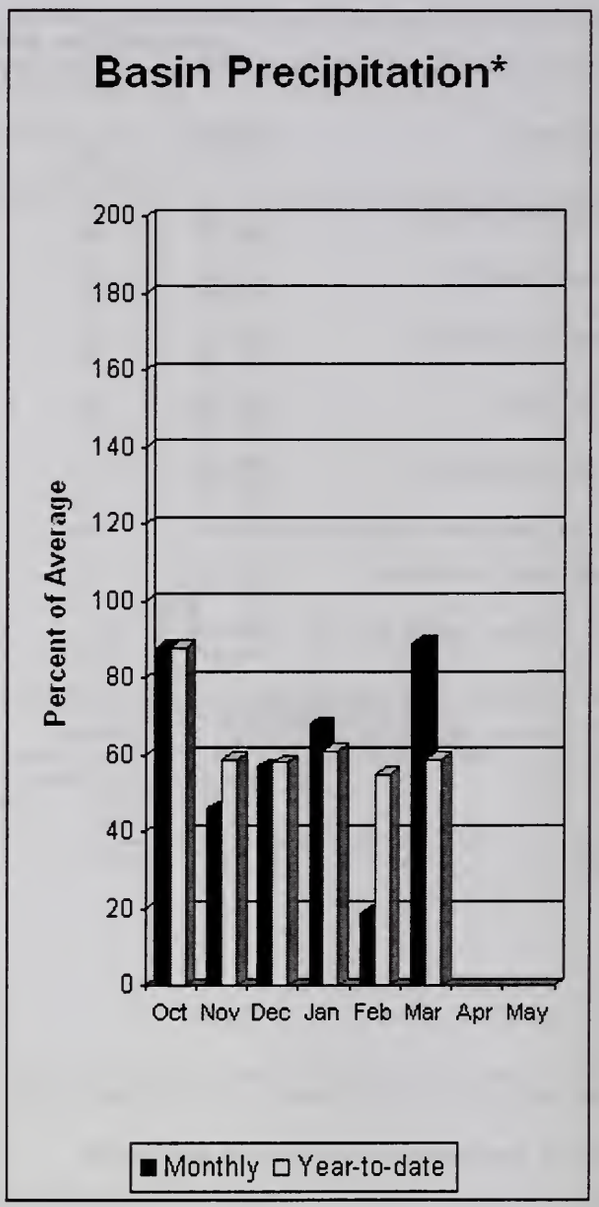
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Upper Yakima River Basin





*Based on selected stations

April 1 reservoir storage for the Upper Yakima reservoirs was 541,000-acre feet, 98% of average. Forecasts for the Yakima River at Cle Elum are 49% of average (a new record low) and the Teanaway River near Cle Elum is at 42%. Lake inflows are all forecasted to be near that same range this summer. March streamflows within the basin were Yakima near Cle Elum at 50% and Cle Elum River near Roslyn at 67%. April 1 snowpack was 25% based upon 12 snow courses and SNOTEL readings within the Upper Yakima Basin. Precipitation was 89% of average for March and 59% year-to-date for water. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
KEECHELUS LAKE INFLOW	APR-JUL	44	54	61	50	68	78	121
	APR-SEP	47	59	67	50	75	87	133
KACHESS LAKE INFLOW	APR-JUL	38	46	51	46	56	64	111
	APR-SEP	40	49	55	46	61	70	120
CLE ELUM LAKE INFLOW	APR-JUL	168	190	205	50	220	240	410
	APR-SEP	183	210	225	50	240	265	450
YAKIMA at Cle Elum	APR-JUL	335	375	405	49	435	475	820
	APR-SEP	365	415	445	49	475	525	900
TEANAWAY near Cle Elum	APR-JUL	40	52	60	42	68	80	143
	APR-SEP	25	46	61	42	76	97	146

UPPER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
KEECHELUS	157.8	107.6	---	114.1
KACHESS	239.0	140.5	---	169.4
CLE ELUM	436.9	293.3	---	270.1

UPPER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2005

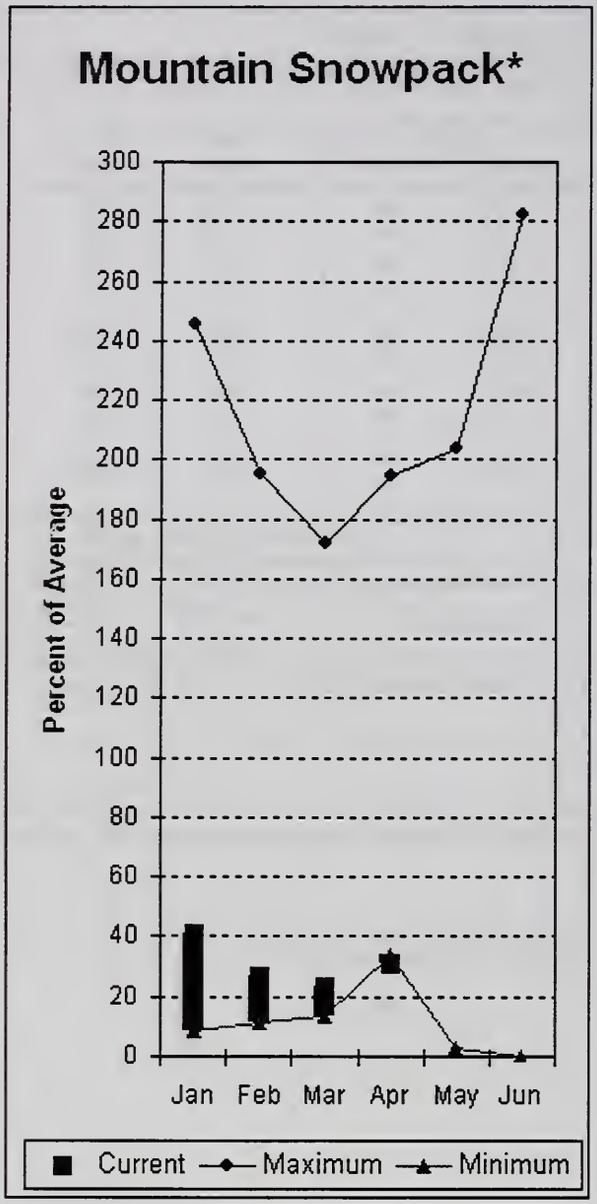
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
UPPER YAKIMA RIVER	12	33	25

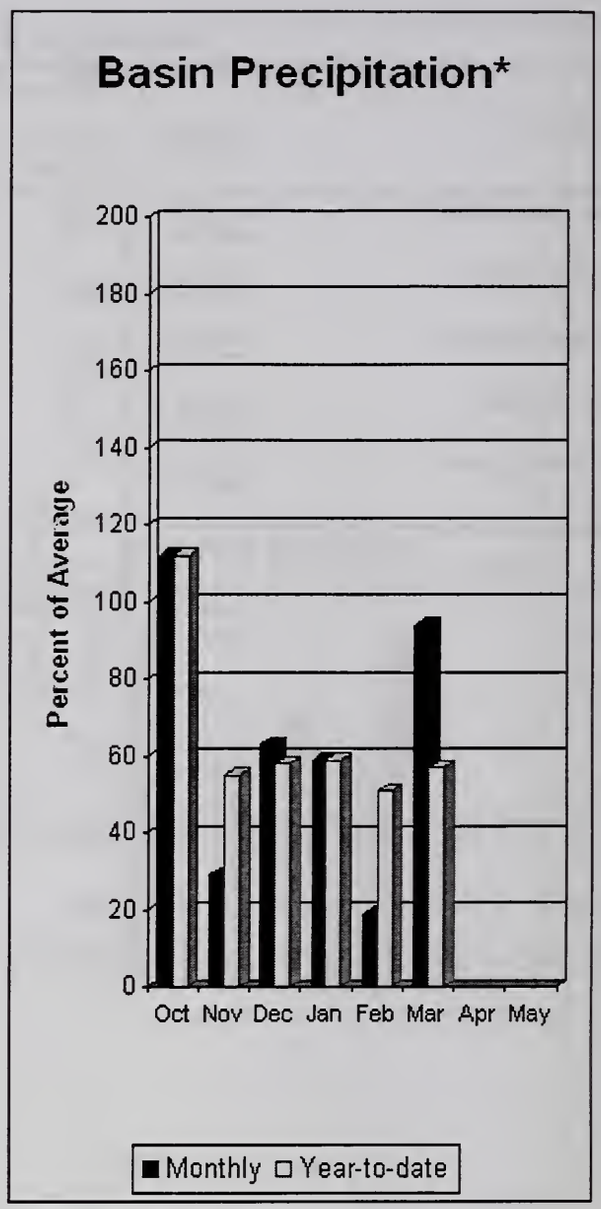
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Lower Yakima River Basin





*Based on selected stations

March average streamflows within the basin were: Yakima River near Parker, 45%; Naches River near Naches, 45%; and Yakima River at Kiona, 26%. April 1 reservoir storage for Bumping and Rimrock reservoirs was 197,000-acre feet, 130% of average. Forecast averages for Yakima River near Parker are 40%; American River near Nile, 48%; Ahtanum Creek, 31%; and Klickitat River near Glenwood, 34%. April 1 snowpack was 31% based upon 6 snow courses and SNOTEL readings within the Lower Yakima Basin and Ahtanum Creek reported in at 32 % of average. Precipitation was 94% of average for March and 57% year-to-date for water. Temperatures were 3 degrees above normal for March and 2 degrees above average for the water year. Volume forecasts for Yakima Basin are for natural flow. As such, they April differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
BUMPING LAKE INFLOW	APR-SEP	50	58	63	48	68	76	132
	APR-JUL	46	53	58	48	63	70	122
AMERICAN RIVER near Nile	APR-SEP	44	51	56	48	61	68	118
	APR-JUL	39	46	51	47	56	63	108
RIMROCK LAKE INFLOW	APR-SEP	95	110	120	50	130	145	240
	APR-JUL	83	94	102	50	110	121	205
NACHES near Naches	APR-SEP	255	300	330	40	360	405	835
	APR-JUL	230	270	300	40	330	370	760
AHTANUM CREEK at Union Gap	APR-SEP	2.3	6.8	9.9	31	13.0	17.5	32
	APR-JUL	2.2	6.4	9.3	31	12.2	16.4	30
YAKIMA near Parker	APR-SEP	595	695	765	40	835	935	1920
	APR-JUL	540	630	690	40	750	835	1730
KLICKITAT near Glenwood	APR-JUN	22	31	37	29	43	52	129
	APR-SEP	34	47	56	34	65	78	163

LOWER YAKIMA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
BUMPING LAKE	33.7	29.6	---	13.1
RIMROCK	198.0	166.9	---	138.5

LOWER YAKIMA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2005

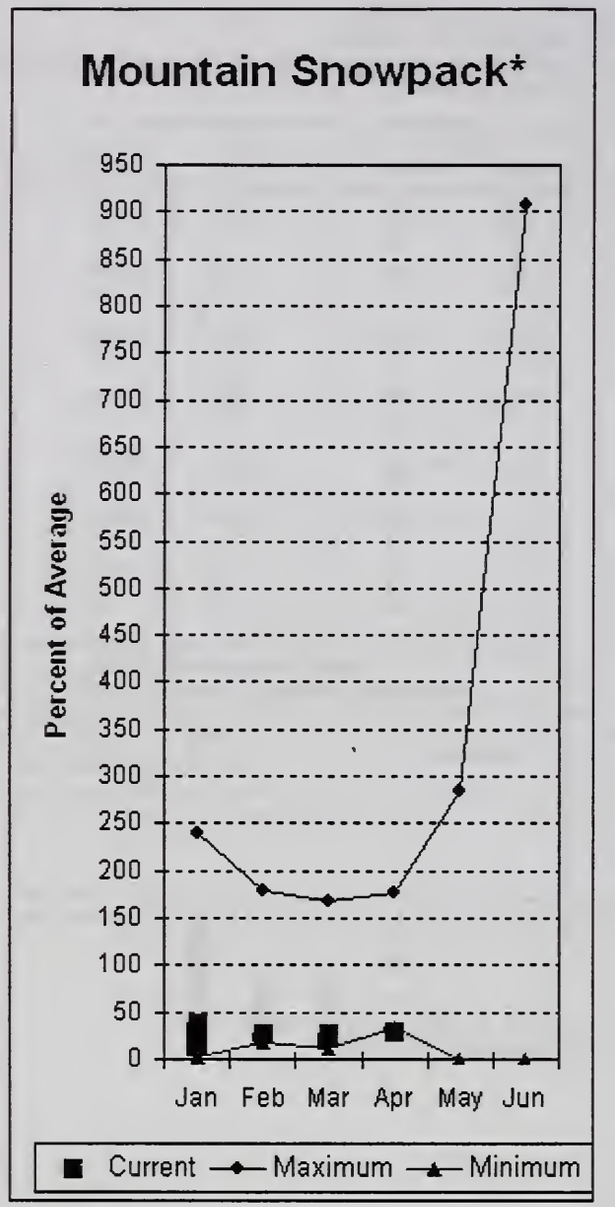
Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average

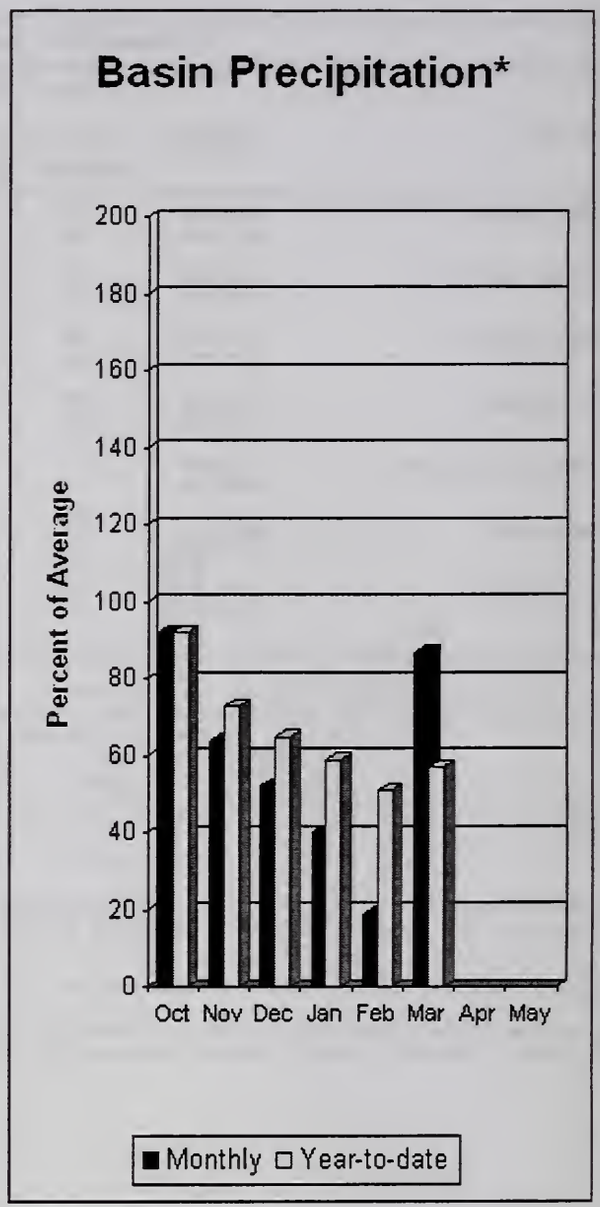
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Walla Walla River Basin





*Based on selected stations

March precipitation was 87% of average, maintaining the year-to-date precipitation at 57% of average. Snowpack in the basin was 29% of average. Streamflow forecasts are 32% of average for Mill Creek and 70% for the SF Walla Walla near Milton-Freewater. March streamflow was 71% of average for the Walla Walla River. Average temperatures were 4 degrees above normal for March and 1 degree above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
MILL CREEK at Walla Walla	APR-SEP	3.9	5.0	5.8	32	8.2	11.8	18.4
	APR-JUL	3.9	5.0	5.7	31	8.1	11.7	18.2
SF WALLA WALLA near Milton-Freewater	APR-JUL	30	35	38	70	41	46	54
	APR-SEP	38	43	47	70	51	56	67

WALLA WALLA RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WALLA WALLA RIVER BASIN
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WALLA WALLA RIVER	2	35	29

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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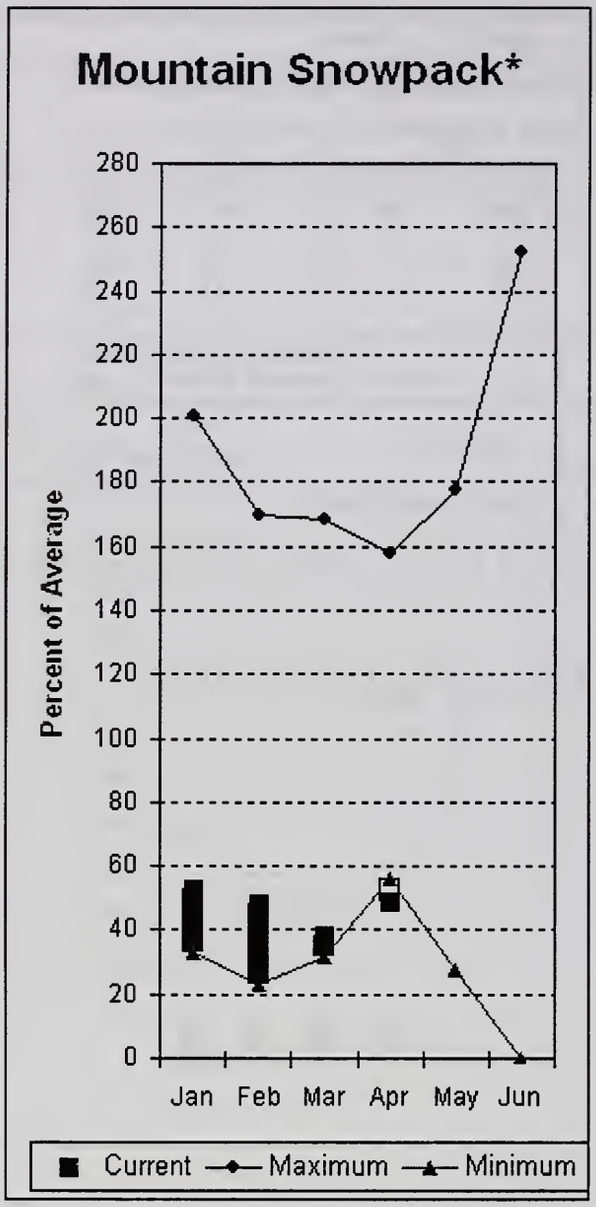
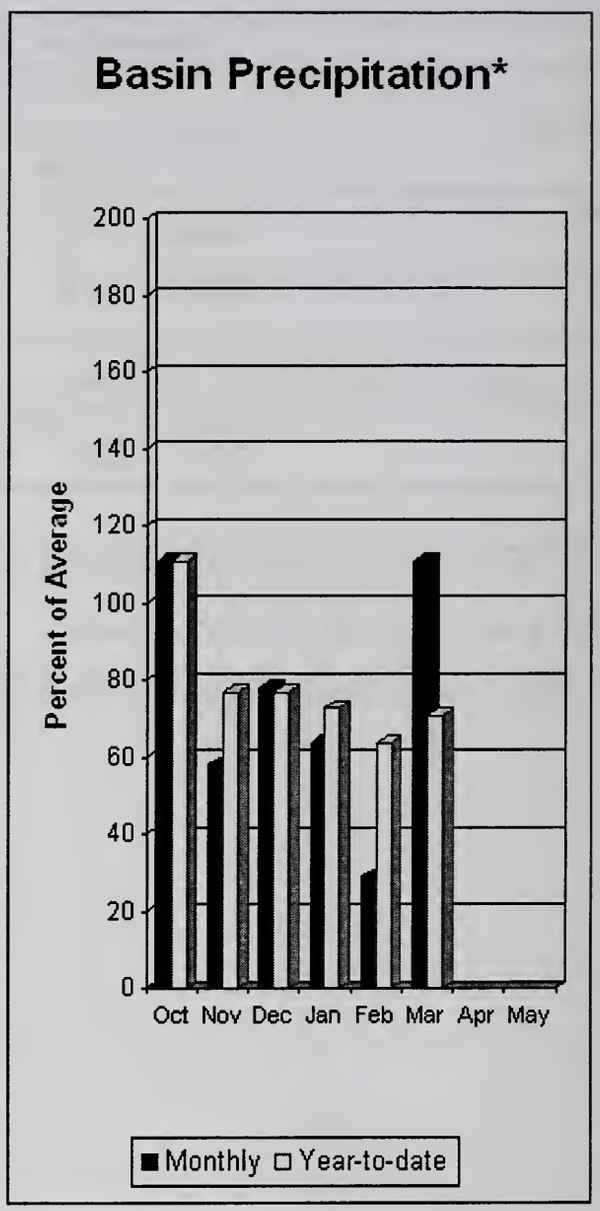
Lower Snake River Basin





*Based on selected stations

The April - September forecast is for 59% for Clearwater River at Spalding. The Snake and Grande Ronde rivers can expect summer flows to be about 52% and 53% of normal respectively. March precipitation was 111% of average, bringing the year-to-date precipitation to 71% of average. April 1 snowpack readings averaged 49% of normal. March streamflow was 48% of average for Snake River below Lower Granite Dam and 37% for Grande Ronde River near Troy. Average temperatures were 4 degrees above normal for March and 3 degrees above normal for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
GRANDE RONDE at Troy (1)	APR-JUL	344	578	685	54	792	1025	1270
	APR-SEP	362	615	730	53	845	1100	1370
CLEARWATER at Spalding (1,2)	APR-JUL	2600	3820	4380	59	4940	6160	7430
	APR-SEP	2860	4080	4640	59	5200	6420	7850
SNAKE blw Lower Granite Dam (1,2)	APR-JUL	6184	9565	11100	51	12640	16020	21600
	APR-SEP	6975	10774	12500	52	14230	18030	24100

LOWER SNAKE RIVER BASIN
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

LOWER SNAKE RIVER BASIN
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LOWER SNAKE, GRANDE RONDE	17	56	49

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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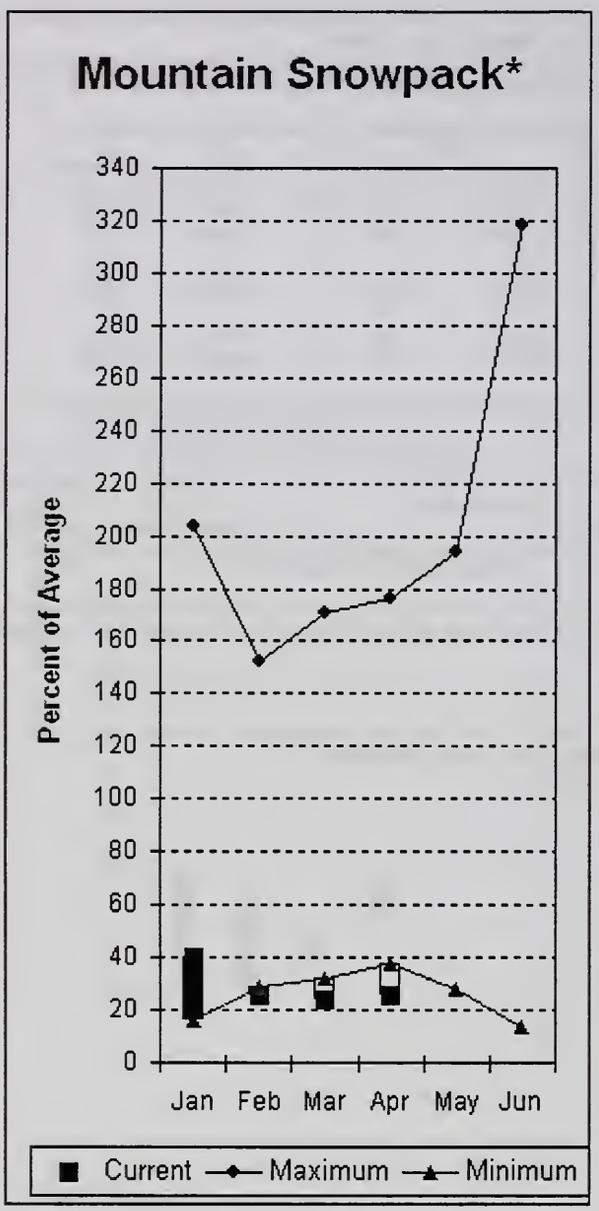
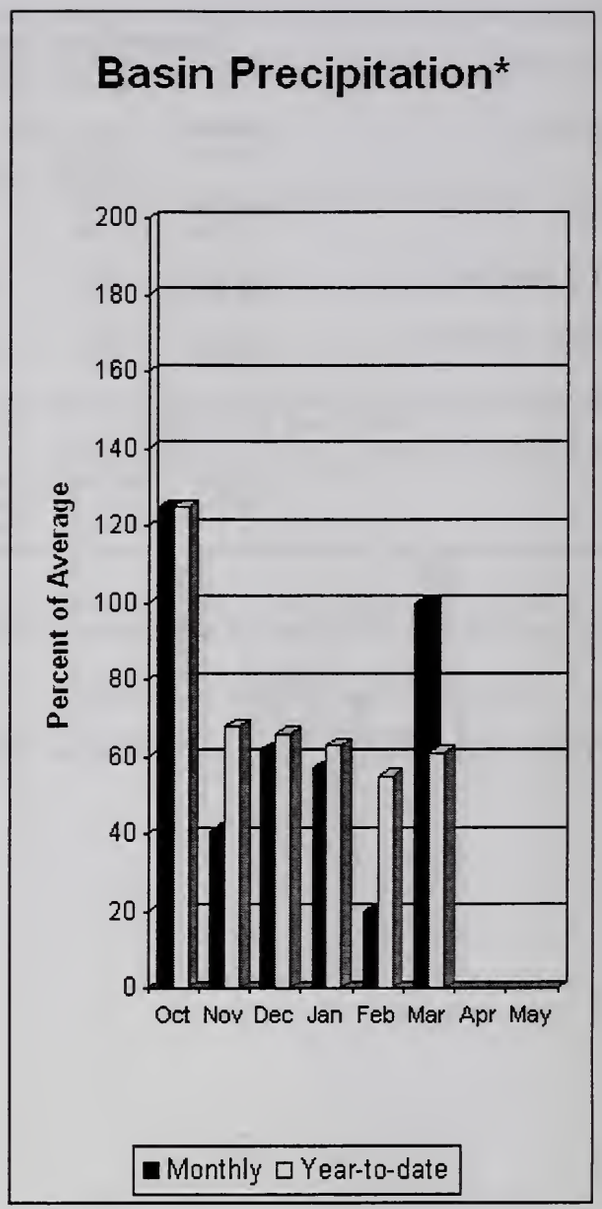
Cowlitz - Lewis River Basins





*Based on selected stations

Forecasts for April – September streamflows within the basin are Lewis River at Ariel, 61% and Cowlitz River at Castle Rock, 63% of average. The Columbia at The Dalles is forecasted to have 66%of average flows this summer. March average streamflow for Cowlitz River was 52% and 60% for Lewis River. The Columbia River at The Dalles was 63% of average. March precipitation was 100% of average and the water-year average was 61%. April 1 snow cover for Cowlitz River was 31%, and Lewis River was 21% of average. Average temperatures were 4 degrees above normal during March and 2 degrees above normal throughout the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
LEWIS at Ariel (2)	APR-JUL	345	510	620	60	730	895	1031
	APR-SEP	430	600	715	61	830	1000	1176
COWLITZ R. bl Mayfield Dam (2)	APR-SEP	318	837	1190	62	1545	2060	1922
	APR-JUL	176	696	1050	62	1405	1925	1689
COWLITZ R. at Castle Rock (2)	APR-SEP	442	1161	1650	63	2140	2860	2639
	APR-JUL	593	1091	1430	62	1770	2265	2295
KLICKITAT near Glenwood	APR-JUN	22	31	37	29	43	52	129
	APR-SEP	34	47	56	34	65	78	163
COLUMBIA R. at The Dalles (2)	APR-SEP	54108	60355	64600	66	68840	75090	98600
	APR-JUL	43763	50454	55000	65	59550	66240	84600

COWLITZ - LEWIS RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

COWLITZ - LEWIS RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
LEWIS RIVER	4	19	21
COWLITZ RIVER	5	32	31

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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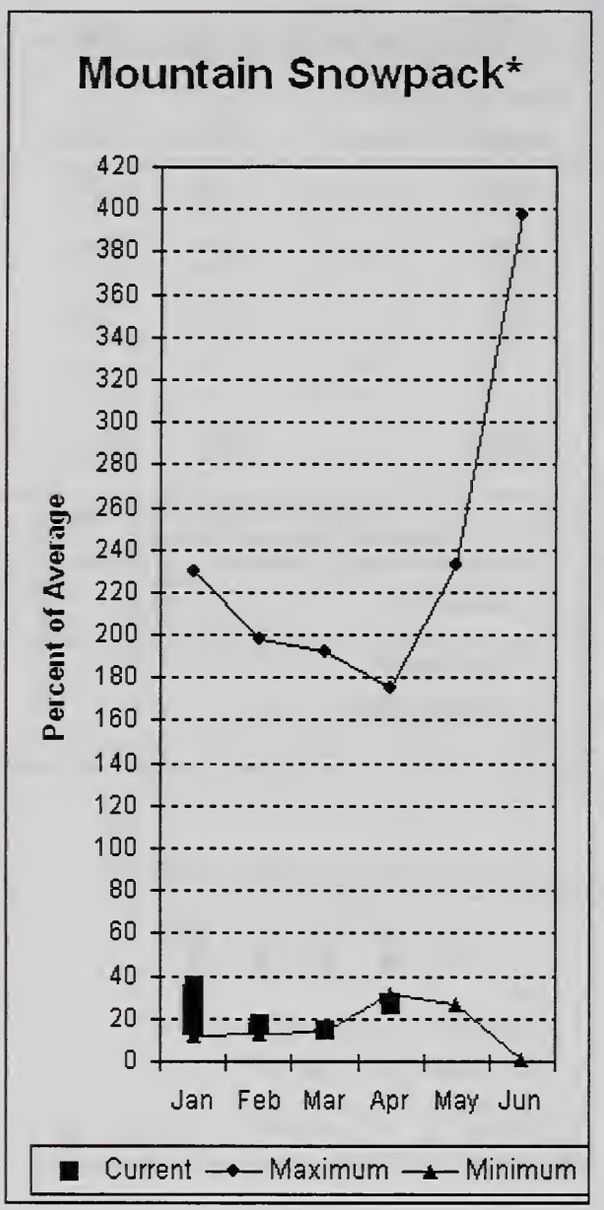
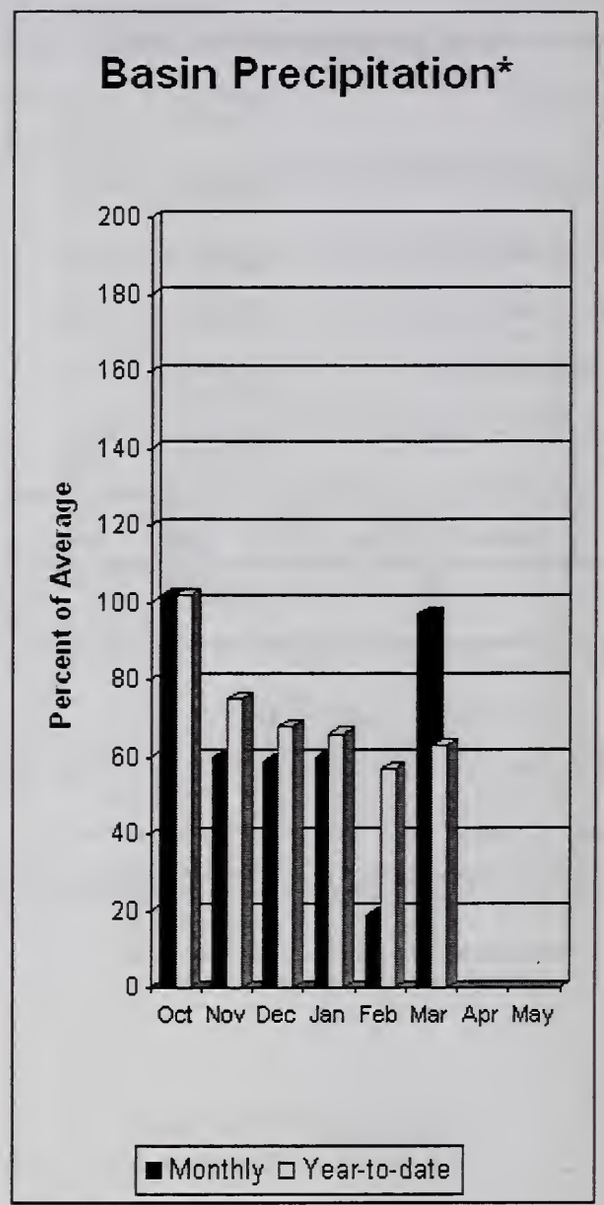
White - Green River Basins





*Based on selected stations

Summer runoff is forecast to be 48% of normal for the Green River below Howard Hanson Dam and 56% for the White River near Buckley. Both rivers are expected to set new record low flows this season. April 1 snowpack was 39% of average in both White River and Puyallup River basins and 16% in the Green River Basin. Water content on April 1 at Corral Pass SNOTEL, at an elevation of 6,000 feet, was 12.6 inches. This site has an April 1 average of 34.9 inches. March precipitation was 97% of average, bringing the water year-to-date to 63% of average for the basins. Average temperatures in the area were 3-4 degrees above normal for March and 2 degrees above normal for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter ======>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
WHITE near Buckley (1,2)	APR-JUL	175	225	250	57	275	325	440
	APR-SEP	210	275	300	56	325	390	534
GREEN below Howard Hanson (1,2)	APR-JUL	50	82	97	40	112	144	243
	APR-SEP	75	112	128	48	144	181	268

WHITE - GREEN - PUYALLUP RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

WHITE - GREEN - PUYALLUP RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
WHITE RIVER	2	42	39
GREEN RIVER	7	18	16
PUYALLUP RIVER	2	42	39

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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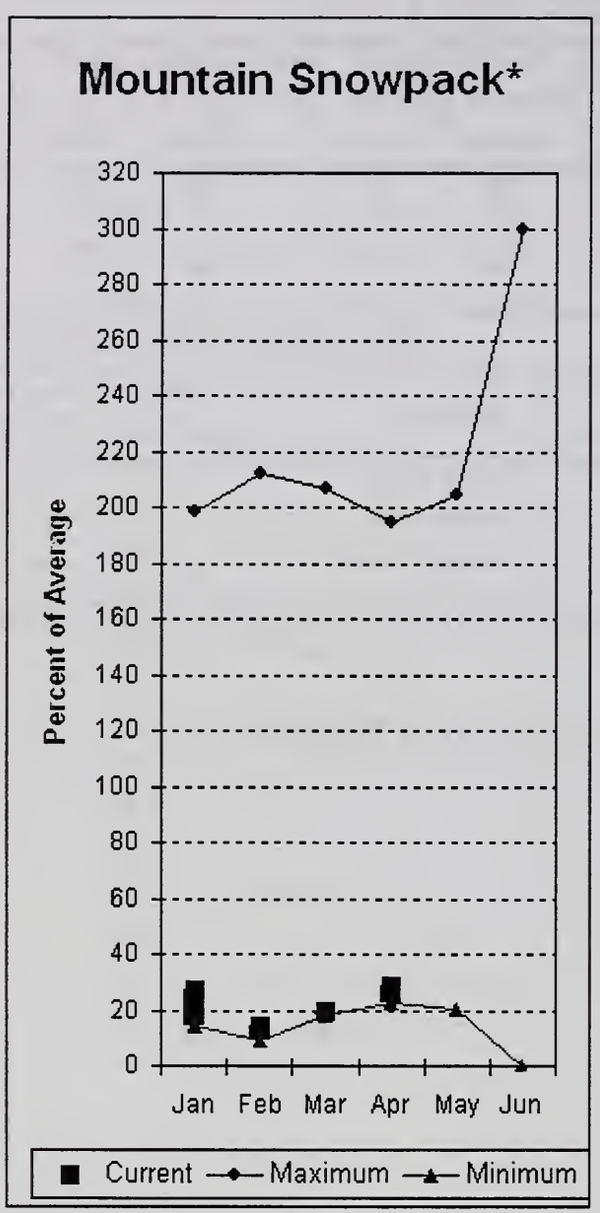
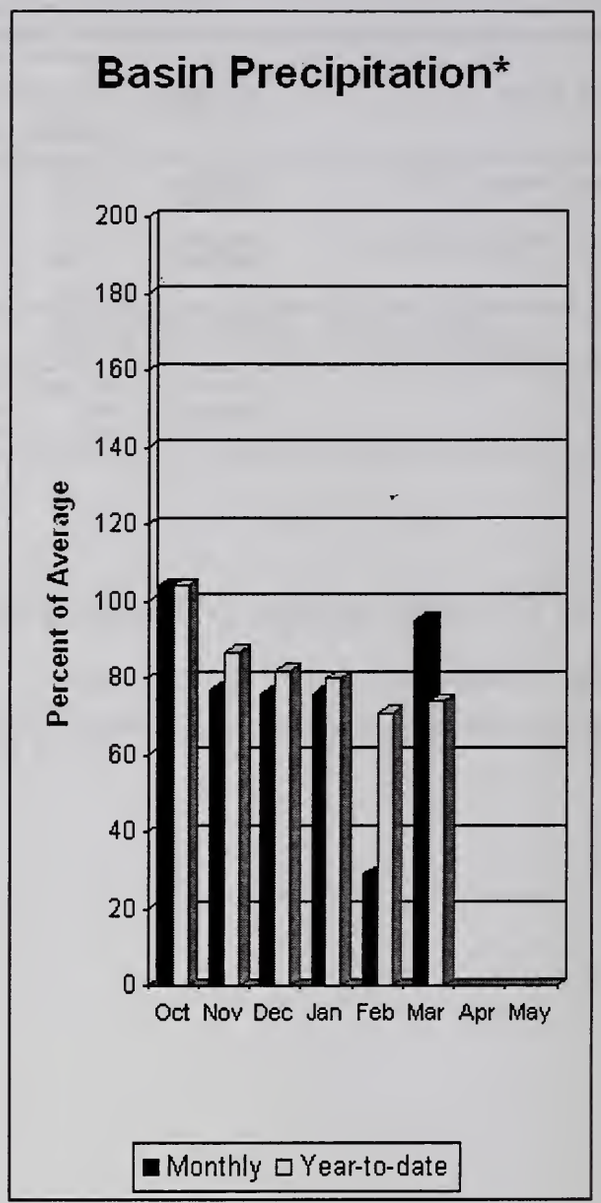
(2) - The value is natural volume - actual volume may be affected by upstream water management.

Central Puget Sound River Basins





*Based on selected stations

Forecast for spring and summer flows are: 53% for Cedar River near Cedar Falls; 46% for Rex River; 56% for South Fork of the Tolt River; and 44% for Cedar River at Cedar Falls. Forecasts on all four rivers rank second lowest on record. Basin-wide precipitation for March was 95% of average, bringing water-year-to-date to 74% of average. April 1 average snow cover in Cedar River Basin was 28%, Tolt River Basin was 35%, Snoqualmie River Basin was 28%, and Skykomish River Basin was 32%. Olallie Meadows SNOTEL site, at 3960 feet, had 16 inches of water content. Average April 1 water content is 55.9 inches at Olallie Meadows. Temperatures were 3 degrees above average for March and 1 degree above normal for the water-year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
CEDAR near Cedar Falls	APR-JUL	21	29	35	48	41	49	73
	APR-SEP	27	36	42	53	48	57	80
REX near Cedar Falls	APR-JUL	4.3	8.3	11.0	44	13.7	17.5	25
	APR-SEP	5.7	10.0	13.0	46	15.9	19.9	28
CEDAR RIVER at Cedar Falls	APR-JUL	11.8	24	33	45	42	54	74
	APR-SEP	12.9	24	32	44	40	51	73
SOUTH FORK TOLT near Index	APR-JUL	5.6	7.0	8.0	54	9.0	10.4	14.7
	APR-SEP	6.4	8.3	9.5	56	10.7	12.6	16.9

CENTRAL PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

CENTRAL PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

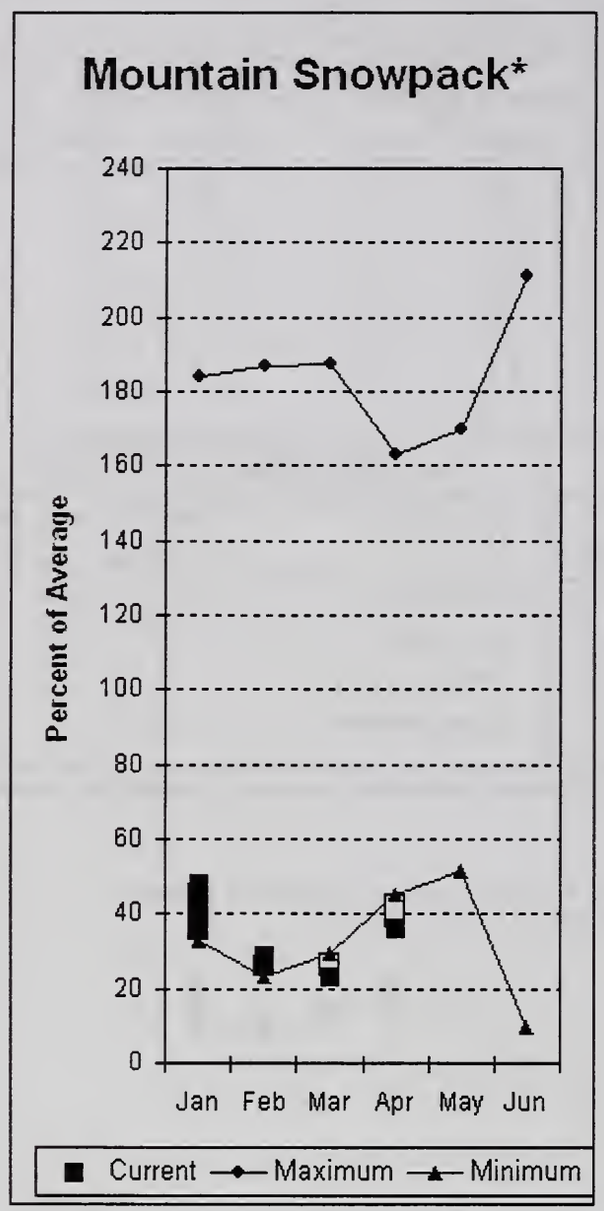
Watershed	Number of Data Sites	This Year as % of Last Yr	Average
CEDAR RIVER	6	23	20
TOLT RIVER	3	27	32
SNOQUALMIE RIVER	6	27	27
SKYKOMISH RIVER	4	31	30

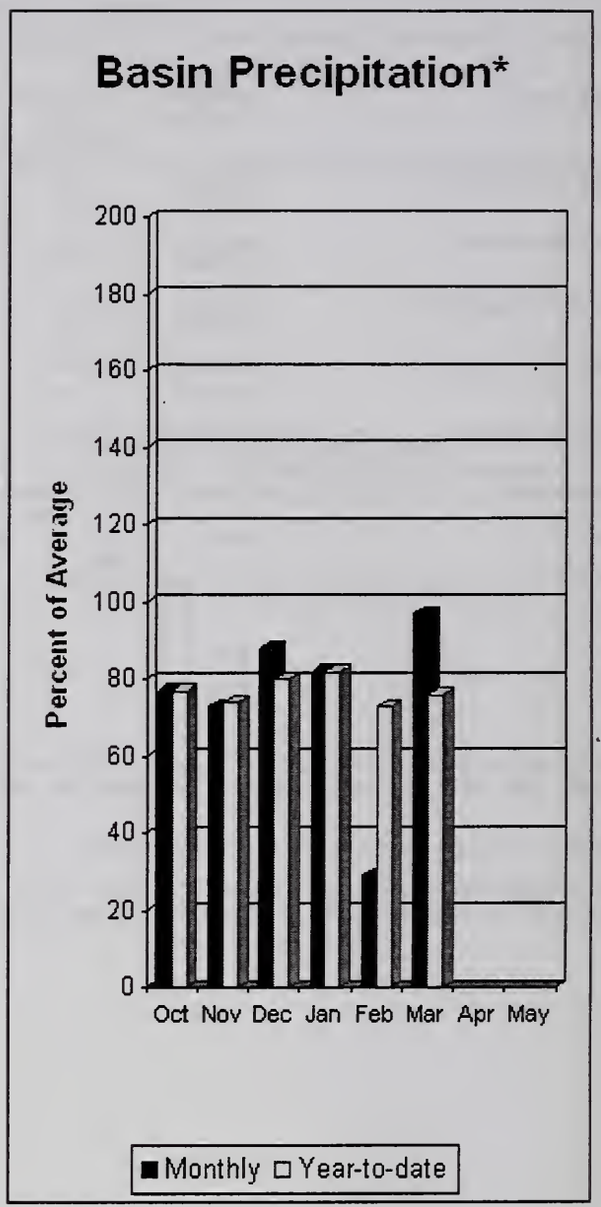
* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural volume - actual volume may be affected by upstream water management.

North Puget Sound River Basins





*Based on selected stations

Forecast for Skagit River streamflow at Newhalem is 56% of average for the spring and summer period. March streamflow in Skagit River was 66% of average. Other forecast points included the Baker River at 62% and Thunder Creek at 63% of average. Thunder Creek and Baker River are setting new record flows and the Skagit is ranked second on record. Basin-wide precipitation for March was 97% of average, bringing water-year-to-date to 76% of average. April 1 average snow cover in Skagit River Basin was 34%, and Nooksack River Basin was 31%. Baker River Basin snow surveys reported 43%. Rainy Pass SNOTEL, at 4,780 feet, had 15.6 inches of water content. Average April 1 water content is 44 inches at Rainy Pass. April 1 Skagit River reservoir storage was 149% of average and 78% of capacity. Average temperatures for March were 3 degrees above normal for the basin and 1 degree above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
THUNDER CREEK near Newhalem	APR-JUL	123	139	150	64	161	177	234
	APR-SEP	180	200	210	63	220	240	333
SKAGIT at Newhalem (2)	APR-JUL	840	950	1020	55	1090	1200	1864
	APR-SEP	1030	1160	1240	56	1320	1450	2217
BAKER RIVER near Concrete	APR-JUL	430	490	530	64	570	630	828
	APR-SEP	525	600	650	62	700	775	1050

NORTH PUGET SOUND RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg
ROSS	1404.1	1073.8	---	693.0
DIABLO RESERVOIR	90.6	85.4	---	86.2

NORTH PUGET SOUND RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	This Year as % of Average
SKAGIT RIVER	13	44	34
BAKER RIVER	1	0	43
NOOKSACK RIVER	2	31	31

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1971-2000 base period.

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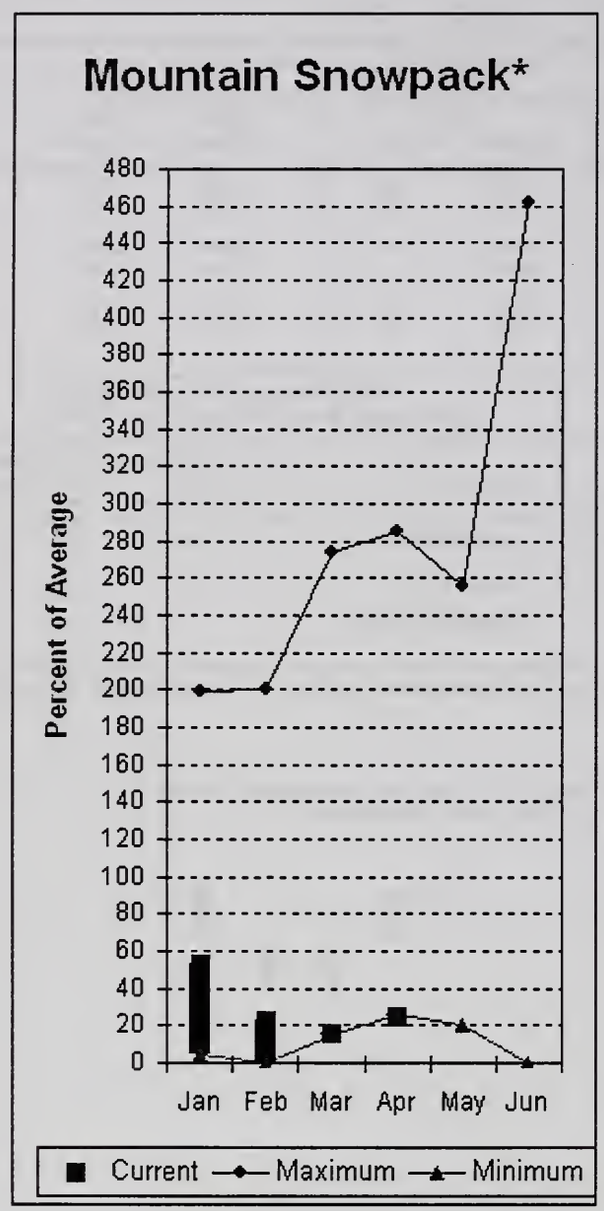
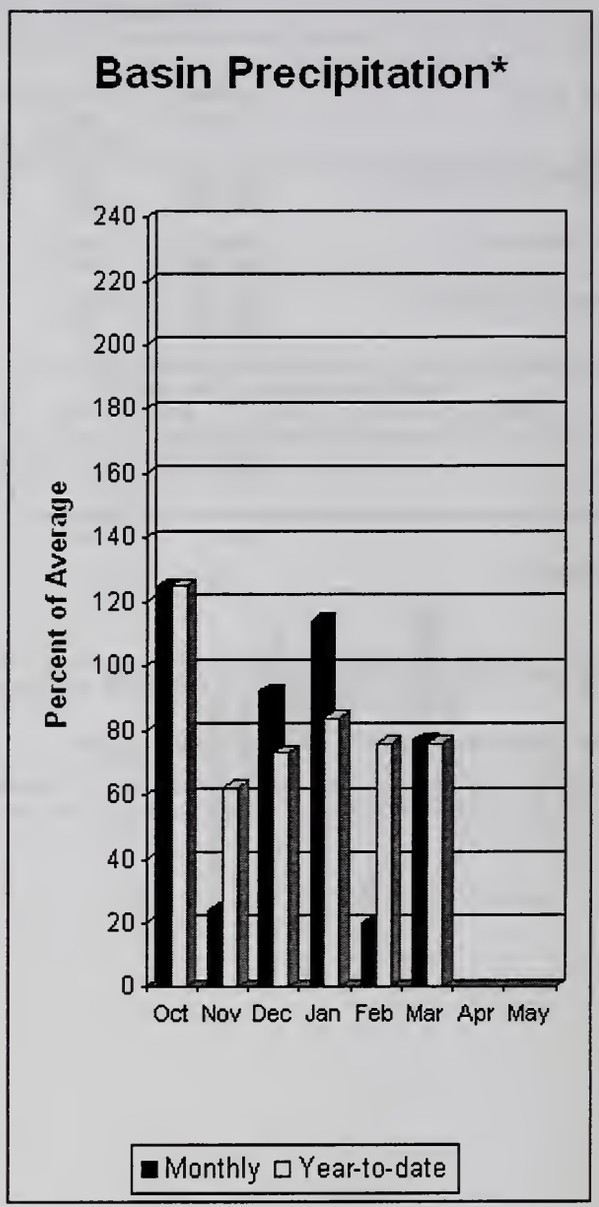
Olympic Peninsula River Basins





*Based on selected stations

Forecasted average runoff for streamflow in the Dungeness River and Elwha River basins is 56% and 52%, ranking third and second worst on record, respectively. Big Quilcene and Wynoochee rivers should expect below average runoff this summer also. March precipitation was 77% of average. Precipitation has accumulated at 76% of average for the water year. March precipitation at Quillayute was 11.31 inches. The thirty-year average for March is 10.98 inches. Olympic Peninsula snowpack averaged 45% of normal on the east side and only 16% in the Hurricane Ridge area on April 1. Temperatures were 3 degrees above average for March and 2 degrees above average for the water year.

For more information contact your local Natural Resources Conservation Service office.

Streamflow Forecasts - April 1, 2005

Forecast Point	Forecast Period	<<====== Drier ====== Future Conditions ======= Wetter =====>> Chance Of Exceeding * 90% (1000AF)	70% (1000AF)	50% (1000AF)	50% (% AVG.)	30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
DUNGENESS near Sequim	APR-SEP	67	78	85	56	92	103	152
	APR-JUL	53	62	68	55	74	83	124
ELWHA near Port Angeles	APR-SEP	200	235	260	52	285	320	503
	APR-JUL	165	200	220	53	240	275	419

OLYMPIC PENINSULA RIVER BASINS
Reservoir Storage (1000 AF) - End of March

Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg

OLYMPIC PENINSULA RIVER BASINS
Watershed Snowpack Analysis - April 1, 2005

Watershed	Number of Data Sites	This Year as % of Last Yr	Average
OLYMPIC PENINSULA	4	32	25

* 90%, 70%, 50%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

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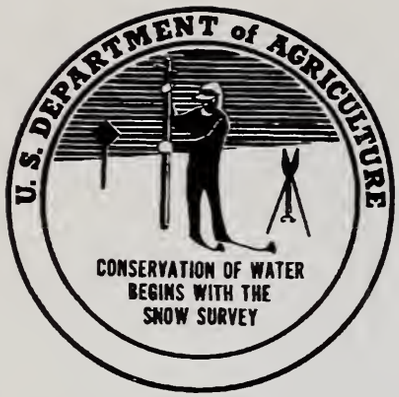
The Following Organizations Cooperate with the Natural Resources Conservation Service in Snow Survey Work*:

Canada	Ministry of Sustainable Resources Snow Survey, River Forecast Centre, Victoria, British Columbia
State	Washington State Department of Ecology Washington State Department of Natural Resources
Federal	Department of the Army Corps of Engineers U.S. Department of Agriculture Forest Service U.S. Department of Commerce NOAA, National Weather Service U.S. Department of Interior Bonneville Power Administration Bureau of Reclamation Geological Survey National Park Service Bureau of Indian Affairs
Local	City of Tacoma City of Seattle Chelan County P.U.D. Pacific Power and Light Company Puget Sound Power and Light Company Washington Water Power Company Snohomish County P.U.D. Colville Confederated Tribes Spokane County Yakama Indian Nation Whatcom County Pierce County
Private	Okanogan Irrigation District Wenatchee Heights Irrigation District Newman Lake Homeowners Association Whitestone Reclamation District

*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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Washington Water Supply Outlook Report

Natural Resources Conservation Service
Spokane, WA